

PASOLINK NEO
6-52 GHz PDH/SDH DIGITAL RADIO SYSTEM

APPENDIX
RADIO FREQUENCY PLAN FOR PASOLINK NEO

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APPENDIX

RADIO FREQUENCY PLAN FOR PASOLINK NEO

This provides frequency range used in each RF frequency band (6 to 38 GHz) as follows:

Note: Each data transmission system have to take following channel separation or more.

Usually, RF channel frequency must be assigned that is shifted a half of channel separation from Start and Stop frequency values within frequency range of Sub Band.

Refer to below example for the system of transmission capacity of 40 MB.

Transmission Capacity: 40 MB

Modulation Scheme: 16 QAM

CH Separation: 14MHz

TX frequency F_t : $f_1 + 7 \text{ MHz} < F_t < f_n - 7 \text{ MHz}$

(where; f_1 =Start frequency, f_n =Stop frequency)

SELECTABLE MODEM SYSTEM	CHANNEL SEPARATION FOR TRAFFIC CAPACITY			
	3.5 MHz	7 MHz	14 (13.75)* MHz	28 (27.5)* MHz
QPSK	–	10 MB	20 MB	40 MB
16QAM	10 MB	20 MB	40 MB	80 MB
32QAM	–			108 MB
128QAM	–			155 MB

Note: 13.75 and 27.5 MHz apply for 18 GHz.

Note: For 6/7/8/GHz Band is applied, the TX/RX BPFs are adjusted to the point frequency which is indicated in the ODU name plate. Therefore, to change the point frequency, the TX/RX BPFs replacement and LCT resetup are required.

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1. L6 GHz Band

Table A-1 L6 GHz, Sub-band E versus Frequency Range
(TX-RX frequency spacing: 252.04 MHz): STANDARD

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		5930.375 to 6152.750 MHz		6182.415 to 6404.790 MHz		Lower Band	
		6182.415 to 6404.790 MHz		5930.375 to 6152.750 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009024()	E	1	5930.375	6182.415	1'	6182.415	5930.375
		2	5945.200	6197.240	2'	6197.240	5945.200
		3	5960.025	6212.065	3'	6212.065	5960.025
		4	5974.850	6226.890	4'	6226.890	5974.850
		5	5989.675	6241.715	5'	6241.715	5989.675
		6	6004.500	6256.540	6'	6256.540	6004.500
		7	6019.325	6271.365	7'	6271.365	6019.325
		8	6034.150	6286.190	8'	6286.190	6034.150
		9	6048.975	6301.015	9'	6301.015	6048.975
		10	6063.800	6315.840	10'	6315.840	6063.800
		11	6078.625	6330.665	11'	6330.665	6078.625
		12	6093.450	6345.490	12'	6345.490	6093.450
		13	6108.275	6360.315	13'	6360.315	6108.275
		14	6123.100	6375.140	14'	6375.140	6123.100
		15	6137.925	6389.965	15'	6389.965	6137.925
		16	6152.750	6404.790	16'	6404.790	6152.750

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

**Table A-2 L6 GHz, Sub-band E versus Frequency Range
(TX-RX frequency spacing: 252.04 MHz): MEXICO**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		5935.317 to 6162.633 MHz		6187.357 to 6414.673 MHz		Lower Band	
		6187.357 to 6414.673 MHz		5935.317 to 6162.633 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009024()	E	1	5935.317	6187.357	1'	6187.357	5935.317
		2	5945.200	6197.240	2'	6197.240	5945.200
		3	5955.083	6207.123	3'	6207.123	5955.083
		4	5964.966	6217.006	4'	6217.006	5964.966
		5	5974.850	6226.890	5'	6226.890	5974.850
		6	5984.733	6236.773	6'	6236.773	5984.733
		7	5994.616	6246.656	7'	6246.656	5994.616
		8	6004.500	6256.540	8'	6256.540	6004.500
		9	6014.383	6266.423	9'	6266.423	6014.383
		10	6024.266	6276.306	10'	6276.306	6024.266
		11	6034.150	6286.190	11'	6286.190	6034.150
		12	6044.033	6296.073	12'	6296.073	6044.033
		13	6053.916	6305.956	13'	6305.956	6053.916
		14	6063.800	6315.840	14'	6315.840	6063.800
		15	6073.683	6325.723	15'	6325.723	6073.683
		16	6083.566	6335.606	16'	6335.606	6083.566
		17	6093.450	6345.490	17'	6345.490	6093.450
		18	6103.333	6355.373	18'	6355.373	6103.333
		19	6113.216	6365.256	19'	6365.256	6113.216
		20	6123.100	6375.140	20'	6375.140	6123.100
		21	6132.983	6385.023	21'	6385.023	6132.983
		22	6142.866	6394.906	22'	6394.906	6142.866
		23	6152.750	6404.790	23'	6404.790	6152.750
		24	6162.633	6414.673	24'	6414.673	6162.633

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

**Table A-3 L6 GHz, Sub-band F versus Frequency Range
(TX-RX frequency spacing: 266 MHz): OIRT**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		5675 to 5885 MHz		5941 MHz to 6151 MHz		Lower Band	
		5941 MHz to 6151 MHz		5675 to 5885 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009024()	F	1	5675	5941	1'	5941	5675
		2	5689	5955	2'	5955	5689
		3	5703	5969	3'	5969	5703
		4	5717	5983	4'	5983	5717
		5	5731	5997	5'	5997	5731
		6	5745	6011	6'	6011	5745
		7	5759	6025	7'	6025	5759
		8	5773	6039	8'	6039	5773
		9	5787	6053	9'	6053	5787
		10	5801	6067	10'	6067	5801
		11	5815	6081	11'	6081	5815
		12	5829	6095	12'	6095	5829
		13	5843	6109	13'	6109	5843
		14	5857	6123	14'	6123	5857
		15	5871	6137	15'	6137	5871
		16	5885	6151	16'	6151	5885

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

2. U6 GHz Band

**Table A-4 U6 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 340 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		6440 to 6740 MHz		6780 to 7080 MHz		Lower Band	
		6780 to 7080 MHz		6440 to 6740 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009024()	G	1	6440	6780	1'	6780	6440
		2	6460	6800	2'	6800	6460
		3	6480	6820	3'	6820	6480
		4	6500	6840	4'	6840	6500
		5	6520	6860	5'	6860	6520
		6	6540	6880	6'	6880	6540
		7	6560	6900	7'	6900	6560
		8	6580	6920	8'	6920	6580
		9	6600	6940	9'	6940	6600
		10	6620	6960	10'	6960	6620
		11	6640	6980	11'	6980	6640
		12	6660	7000	12'	7000	6660
		13	6680	7020	13'	7020	6680
		14	6700	7040	14'	7040	6700
		15	6720	7060	15'	7060	6720
		16	6740	7080	16'	7080	6740

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

3. 7 GHz Band

**Table A-5 7 GHz, Sub-band E versus Frequency Range
(TX-RX frequency spacing: 154 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7128.0 to 7264.5 MHz		7282.0 to 7418.5 MHz		Lower Band	
		7282.0 to 7418.5 MHz		7128.0 to 7264.5 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	E	1	7128.0	7282.0	1'	7282.0	7128.0
		2	7131.5	7285.5	2'	7285.5	7131.5
		3	7135.0	7289.0	3'	7289.0	7135.0
		4	7138.5	7292.5	4'	7292.5	7138.5
		5	7142.0	7296.0	5'	7296.0	7142.0
		6	7145.5	7299.5	6'	7299.5	7145.5
		7	7149.0	7303.0	7'	7303.0	7149.0
		8	7152.5	7306.5	8'	7306.5	7152.5
		9	7156.0	7310.0	9'	7310.0	7156.0
		10	7159.5	7313.5	10'	7313.5	7159.5
		11	7163.0	7317.0	11'	7317.0	7163.0
		12	7166.5	7320.5	12'	7320.5	7166.5
		13	7170.0	7324.0	13'	7324.0	7170.0
		14	7173.5	7327.5	14'	7327.5	7173.5
		15	7177.0	7331.0	15'	7331.0	7177.0
		16	7180.5	7334.5	16'	7334.5	7180.5
		17	7184.0	7338.0	17'	7338.0	7184.0
		18	7187.5	7341.5	18'	7341.5	7187.5
		19	7191.0	7345.0	19'	7345.0	7191.0
		20	7194.5	7348.5	20'	7348.5	7194.5
		21	7198.0	7352.0	21'	7352.0	7198.0
		22	7201.5	7355.5	22'	7355.5	7201.5
		23	7205.0	7359.0	23'	7359.0	7205.0
		24	7208.5	7362.5	24'	7362.5	7208.5
		25	7212.0	7366.0	25'	7366.0	7212.0
		26	7215.5	7369.5	26'	7369.5	7215.5
		27	7219.0	7373.0	27'	7373.0	7219.0
		28	7222.5	7376.5	28'	7376.5	7222.5
		29	7226.0	7380.0	29'	7380.0	7226.0
		30	7229.5	7383.5	30'	7383.5	7229.5
		31	7233.0	7387.0	31'	7387.0	7233.0
		32	7236.5	7390.5	32'	7390.5	7236.5
		33	7240.0	7394.0	33'	7394.0	7240.0
		34	7243.5	7397.5	34'	7397.5	7243.5
		35	7247.0	7401.0	35'	7401.0	7247.0
		36	7250.5	7404.5	36'	7404.5	7250.5
		37	7254.0	7408.0	37'	7408.0	7254.0
		38	7257.5	7411.5	38'	7411.5	7257.5
		39	7261.0	7415.0	39'	7415.0	7261.0
		40	7264.5	7418.5	40'	7418.5	7264.5

**Table A-6 7 GHz, Sub-band E versus Frequency Range
(TX-RX frequency spacing: 161 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7124.5 to 7261.0 MHz		7285.5 to 7422.0 MHz		Lower Band	
		7285.5 to 7422.0 MHz		7124.5 to 7261.0 MHz		Higher Band	
		TX Low			TX High		
RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.		
NWA009026()	E	1	7124.5	7285.5	1'	7285.5	7124.5
		2	7128.0	7289.0	2'	7289.0	7128.0
		3	7131.5	7292.5	3'	7292.5	7131.5
		4	7135.0	7296.0	4'	7296.0	7135.0
		5	7138.5	7299.5	5'	7299.5	7138.5
		6	7142.0	7303.0	6'	7303.0	7142.0
		7	7145.5	7306.5	7'	7306.5	7145.5
		8	7149.0	7310.0	8'	7310.0	7149.0
		9	7152.5	7313.5	9'	7313.5	7152.5
		10	7156.0	7317.0	10'	7317.0	7156.0
		11	7159.5	7320.5	11'	7320.5	7159.5
		12	7163.0	7324.0	12'	7324.0	7163.0
		13	7166.5	7327.5	13'	7327.5	7166.5
		14	7170.0	7331.0	14'	7331.0	7170.0
		15	7173.5	7334.5	15'	7334.5	7173.5
		16	7177.0	7338.0	16'	7338.0	7177.0
		17	7180.5	7341.5	17'	7341.5	7180.5
		18	7184.0	7345.0	18'	7345.0	7184.0
		19	7187.5	7348.5	19'	7348.5	7187.5
		20	7191.0	7352.0	20'	7352.0	7191.0
		21	7194.5	7355.5	21'	7355.5	7194.5
		22	7198.0	7359.0	22'	7359.0	7198.0
		23	7201.5	7362.5	23'	7362.5	7201.5
		24	7205.0	7366.0	24'	7366.0	7205.0
		25	7208.5	7369.5	25'	7369.5	7208.5
		26	7212.0	7373.0	26'	7373.0	7212.0
		27	7215.5	7376.5	27'	7376.5	7215.5
		28	7219.0	7380.0	28'	7380.0	7219.0
		29	7222.5	7383.5	29'	7383.5	7222.5
		30	7226.0	7387.0	30'	7387.0	7226.0
		31	7229.5	7390.5	31'	7390.5	7229.5
		32	7233.0	7394.0	32'	7394.0	7233.0
		33	7236.5	7397.5	33'	7397.5	7236.5
		34	7240.0	7401.0	34'	7401.0	7240.0
		35	7243.5	7404.5	35'	7404.5	7243.5
		36	7247.0	7408.0	36'	7408.0	7247.0
		37	7250.5	7411.5	37'	7411.5	7250.5
		38	7254.0	7415.0	38'	7415.0	7254.0
		39	7257.5	7418.5	39'	7418.5	7257.5
		40	7261.0	7422.0	40'	7422.0	7261.0

**Table A-7 7 GHz, Sub-band E versus Frequency Range
(TX-RX frequency spacing: 196 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7107 to 7233 MHz		7303 to 7429 MHz		Lower Band	
		7303 to 7429 MHz		7107 to 7233 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	E	1	7107.0	7303.0	1'	7303.0	7107.0
		2	7121.0	7317.0	2'	7317.0	7121.0
		3	7135.0	7331.0	3'	7331.0	7135.0
		4	7149.0	7345.0	4'	7345.0	7149.0
		5	7163.0	7359.0	5'	7359.0	7163.0
		6	7177.0	7373.0	6'	7373.0	7177.0
		7	7191.0	7387.0	7'	7387.0	7191.0
		8	7205.0	7401.0	8'	7401.0	7205.0
		9	7219.0	7415.0	9'	7415.0	7219.0
		10	7233.0	7429.0	10'	7429.0	7233.0

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

**Table A-8 7 GHz, Sub-band F versus Frequency Range
(TX-RX frequency spacing: 154 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7428.0 to 7564.5 MHz		7582.0 to 7718.5 MHz		Lower Band	
		7582.0 to 7718.5 MHz		7428.0 to 7564.5 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	F	1	7428.0	7582.0	1'	7582.0	7428.0
		2	7431.5	7585.5	2'	7585.5	7431.5
		3	7435.0	7589.0	3'	7589.0	7435.0
		4	7438.5	7592.5	4'	7592.5	7438.5
		5	7442.0	7596.0	5'	7596.0	7442.0
		6	7445.5	7599.5	6'	7599.5	7445.5
		7	7449.0	7603.0	7'	7603.0	7449.0
		8	7452.5	7606.5	8'	7606.5	7452.5
		9	7456.0	7610.0	9'	7610.0	7456.0
		10	7459.5	7613.5	10'	7613.5	7459.5
		11	7463.0	7617.0	11'	7617.0	7463.0
		12	7466.5	7620.5	12'	7620.5	7466.5
		13	7470.0	7624.0	13'	7624.0	7470.0
		14	7473.5	7627.5	14'	7627.5	7473.5
		15	7477.0	7631.0	15'	7631.0	7477.0
		16	7480.5	7634.5	16'	7634.5	7480.5
		17	7484.0	7638.0	17'	7638.0	7484.0
		18	7487.5	7641.5	18'	7641.5	7487.5
		19	7491.0	7645.0	19'	7645.0	7491.0
		20	7494.5	7648.5	20'	7648.5	7494.5
		21	7498.0	7652.0	21'	7652.0	7498.0
		22	7501.5	7655.5	22'	7655.5	7501.5
		23	7505.0	7659.0	23'	7659.0	7505.0
		24	7508.5	7662.5	24'	7662.5	7508.5
		25	7512.0	7666.0	25'	7666.0	7512.0
		26	7515.5	7669.5	26'	7669.5	7515.5
		27	7519.0	7673.0	27'	7673.0	7519.0
		28	7522.5	7676.5	28'	7676.5	7522.5
		29	7526.0	7680.0	29'	7680.0	7526.0
		30	7529.5	7683.5	30'	7683.5	7529.5
		31	7533.0	7687.0	31'	7687.0	7533.0
		32	7536.5	7690.5	32'	7690.5	7536.5
		33	7540.0	7694.0	33'	7694.0	7540.0
		34	7543.5	7697.5	34'	7697.5	7543.5
		35	7547.0	7701.0	35'	7701.0	7547.0
		36	7550.5	7704.5	36'	7704.5	7550.5
		37	7554.0	7708.0	37'	7708.0	7554.0
		38	7557.5	7711.5	38'	7711.5	7557.5
		39	7561.0	7715.0	39'	7715.0	7561.0
		40	7564.5	7718.5	40'	7718.5	7564.5

**Table A-9 7 GHz, Sub-band F versus Frequency Range
(TX-RX frequency spacing: 161 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7424.5 to 7561.0 MHz		7585.5 to 7722.0 MHz		Lower Band	
		7585.5 to 7722.0 MHz		7424.5 to 7561.0 MHz		Higher Band	
		TX Low			TX High		
RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.		
NWA009026()	F	1	7424.5	7585.5	1'	7585.5	7424.5
		2	7428.0	7589.0	2'	7589.0	7428.0
		3	7431.5	7592.5	3'	7592.5	7431.5
		4	7435.0	7596.0	4'	7596.0	7435.0
		5	7438.5	7599.5	5'	7599.5	7438.5
		6	7442.0	7603.0	6'	7603.0	7442.0
		7	7445.5	7606.5	7'	7606.5	7445.5
		8	7449.0	7610.0	8'	7610.0	7449.0
		9	7452.5	7613.5	9'	7613.5	7452.5
		10	7456.0	7617.0	10'	7617.0	7456.0
		11	7459.5	7620.5	11'	7620.5	7459.5
		12	7463.0	7624.0	12'	7624.0	7463.0
		13	7466.5	7627.5	13'	7627.5	7466.5
		14	7470.0	7631.0	14'	7631.0	7470.0
		15	7473.5	7634.5	15'	7634.5	7473.5
		16	7477.0	7638.0	16'	7638.0	7477.0
		17	7480.5	7641.5	17'	7641.5	7480.5
		18	7484.0	7645.0	18'	7645.0	7484.0
		19	7487.5	7648.5	19'	7648.5	7487.5
		20	7491.0	7652.0	20'	7652.0	7491.0
		21	7494.5	7655.5	21'	7655.5	7494.5
		22	7498.0	7659.0	22'	7659.0	7498.0
		23	7501.5	7662.5	23'	7662.5	7501.5
		24	7505.0	7666.0	24'	7666.0	7505.0
		25	7508.5	7669.5	25'	7669.5	7508.5
		26	7512.0	7673.0	26'	7673.0	7512.0
		27	7515.5	7676.5	27'	7676.5	7515.5
		28	7519.0	7680.0	28'	7680.0	7519.0
		29	7522.5	7683.5	29'	7683.5	7522.5
		30	7526.0	7687.0	30'	7687.0	7526.0
		31	7529.5	7690.5	31'	7690.5	7529.5
		32	7533.0	7694.0	32'	7694.0	7533.0
		33	7536.5	7697.5	33'	7697.5	7536.5
		34	7540.0	7701.0	34'	7701.0	7540.0
		35	7543.5	7704.5	35'	7704.5	7543.5
		36	7547.0	7708.0	36'	7708.0	7547.0
		37	7550.5	7711.5	37'	7711.5	7550.5
		38	7554.0	7715.0	38'	7715.0	7554.0
		39	7557.5	7718.5	39'	7718.5	7557.5
		40	7561.0	7722.0	40'	7722.0	7561.0

**Table A-10 7 GHz, Sub-band F versus Frequency Range
(TX-RX frequency spacing: 168 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7443 to 7569 MHz		7611 to 7737 MHz		Lower Band	
		7611 to 7737 MHz		7443 to 7569 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	F	1	7443.0	7611.0	1'	7611.0	7443.0
		2	7457.0	7625.0	2'	7625.0	7457.0
		3	7471.0	7639.0	3'	7639.0	7471.0
		4	7485.0	7653.0	4'	7653.0	7485.0
		5	7499.0	7667.0	5'	7667.0	7499.0
		6	7513.0	7681.0	6'	7681.0	7513.0
		7	7527.0	7695.0	7'	7695.0	7527.0
		8	7541.0	7709.0	8'	7709.0	7541.0
		9	7555.0	7723.0	9'	7723.0	7555.0
		10	7569.0	7737.0	10'	7737.0	7569.0

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

**Table A-11 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7249.5 to 7386.0 MHz		7410.5 to 7547.0 MHz		Lower Band	
		7410.5 to 7547.0 MHz		7249.5 to 7386.0 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	G	1	7249.5	7410.5	1'	7410.5	7249.5
		2	7253.0	7414.0	2'	7414.0	7253.0
		3	7256.5	7417.5	3'	7417.5	7256.5
		4	7260.0	7421.0	4'	7421.0	7260.0
		5	7263.5	7424.5	5'	7424.5	7263.5
		6	7267.0	7428.0	6'	7428.0	7267.0
		7	7270.5	7431.5	7'	7431.5	7270.5
		8	7274.0	7435.0	8'	7435.0	7274.0
		9	7277.5	7438.5	9'	7438.5	7277.5
		10	7281.0	7442.0	10'	7442.0	7281.0
		11	7284.5	7445.5	11'	7445.5	7284.5
		12	7288.0	7449.0	12'	7449.0	7288.0
		13	7291.5	7452.5	13'	7452.5	7291.5
		14	7295.0	7456.0	14'	7456.0	7295.0
		15	7298.5	7459.5	15'	7459.5	7298.5
		16	7302.0	7463.0	16'	7463.0	7302.0
		17	7305.5	7466.5	17'	7466.5	7305.5
		18	7309.0	7470.0	18'	7470.0	7309.0
		19	7312.5	7473.5	19'	7473.5	7312.5
		20	7316.0	7477.0	20'	7477.0	7316.0
		21	7319.5	7480.5	21'	7480.5	7319.5
		22	7323.0	7484.0	22'	7484.0	7323.0
		23	7326.5	7487.5	23'	7487.5	7326.5
		24	7330.0	7491.0	24'	7491.0	7330.0
		25	7333.5	7494.5	25'	7494.5	7333.5
		26	7337.0	7498.0	26'	7498.0	7337.0
		27	7340.5	7501.5	27'	7501.5	7340.5
		28	7344.0	7505.0	28'	7505.0	7344.0
		29	7347.5	7508.5	29'	7508.5	7347.5
		30	7351.0	7512.0	30'	7512.0	7351.0
		31	7354.5	7515.5	31'	7515.5	7354.5
		32	7358.0	7519.0	32'	7519.0	7358.0
		33	7361.5	7522.5	33'	7522.5	7361.5
		34	7365.0	7526.0	34'	7526.0	7365.0
		35	7368.5	7529.5	35'	7529.5	7368.5
		36	7372.0	7533.0	36'	7533.0	7372.0
		37	7375.5	7536.5	37'	7536.5	7375.5
		38	7379.0	7540.0	38'	7540.0	7379.0
		39	7382.5	7543.5	39'	7543.5	7382.5
		40	7386.0	7547.0	40'	7547.0	7386.0

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (1/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	G	1	7253.00	7414.00	1 '	7414.00	7253.00
		2	7253.25	7414.25	2 '	7414.25	7253.25
		3	7253.50	7414.50	3 '	7414.50	7253.50
		4	7253.75	7414.75	4 '	7414.75	7253.75
		5	7254.00	7415.00	5 '	7415.00	7254.00
		6	7254.25	7415.25	6 '	7415.25	7254.25
		7	7254.50	7415.50	7 '	7415.50	7254.50
		8	7254.75	7415.75	8 '	7415.75	7254.75
		9	7255.00	7416.00	9 '	7416.00	7255.00
		10	7255.25	7416.25	10 '	7416.25	7255.25
		11	7255.50	7416.50	11 '	7416.50	7255.50
		12	7255.75	7416.75	12 '	7416.75	7255.75
		13	7256.00	7417.00	13 '	7417.00	7256.00
		14	7256.25	7417.25	14 '	7417.25	7256.25
		15	7256.50	7417.50	15 '	7417.50	7256.50
		16	7256.75	7417.75	16 '	7417.75	7256.75
		17	7257.00	7418.00	17 '	7418.00	7257.00
		18	7257.25	7418.25	18 '	7418.25	7257.25
		19	7257.50	7418.50	19 '	7418.50	7257.50
		20	7257.75	7418.75	20 '	7418.75	7257.75
		21	7258.00	7419.00	21 '	7419.00	7258.00
		22	7258.25	7419.25	22 '	7419.25	7258.25
		23	7258.50	7419.50	23 '	7419.50	7258.50
		24	7258.75	7419.75	24 '	7419.75	7258.75
		25	7259.00	7420.00	25 '	7420.00	7259.00
		26	7259.25	7420.25	26 '	7420.25	7259.25
		27	7259.50	7420.50	27 '	7420.50	7259.50
		28	7259.75	7420.75	28 '	7420.75	7259.75
		29	7260.00	7421.00	29 '	7421.00	7260.00
		30	7260.25	7421.25	30 '	7421.25	7260.25
		31	7260.50	7421.50	31 '	7421.50	7260.50
		32	7260.75	7421.75	32 '	7421.75	7260.75
		33	7261.00	7422.00	33 '	7422.00	7261.00
		34	7261.25	7422.25	34 '	7422.25	7261.25
		35	7261.50	7422.50	35 '	7422.50	7261.50
		36	7261.75	7422.75	36 '	7422.75	7261.75
		37	7262.00	7423.00	37 '	7423.00	7262.00
		38	7262.25	7423.25	38 '	7423.25	7262.25
		39	7262.50	7423.50	39 '	7423.50	7262.50
		40	7262.75	7423.75	40 '	7423.75	7262.75

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (2/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	G	41	7263.00	7424.00	41 '	7424.00	7263.00
		42	7263.25	7424.25	42 '	7424.25	7263.25
		43	7263.50	7424.50	43 '	7424.50	7263.50
		44	7263.75	7424.75	44 '	7424.75	7263.75
		45	7264.00	7425.00	45 '	7425.00	7264.00
		46	7264.25	7425.25	46 '	7425.25	7264.25
		47	7264.50	7425.50	47 '	7425.50	7264.50
		48	7264.75	7425.75	48 '	7425.75	7264.75
		49	7265.00	7426.00	49 '	7426.00	7265.00
		50	7265.25	7426.25	50 '	7426.25	7265.25
		51	7265.50	7426.50	51 '	7426.50	7265.50
		52	7265.75	7426.75	52 '	7426.75	7265.75
		53	7266.00	7427.00	53 '	7427.00	7266.00
		54	7266.25	7427.25	54 '	7427.25	7266.25
		55	7266.50	7427.50	55 '	7427.50	7266.50
		56	7266.75	7427.75	56 '	7427.75	7266.75
		57	7267.00	7428.00	57 '	7428.00	7267.00
		58	7267.25	7428.25	58 '	7428.25	7267.25
		59	7267.50	7428.50	59 '	7428.50	7267.50
		60	7267.75	7428.75	60 '	7428.75	7267.75
		61	7268.00	7429.00	61 '	7429.00	7268.00
		62	7268.25	7429.25	62 '	7429.25	7268.25
		63	7268.50	7429.50	63 '	7429.50	7268.50
		64	7268.75	7429.75	64 '	7429.75	7268.75
		65	7269.00	7430.00	65 '	7430.00	7269.00
		66	7269.25	7430.25	66 '	7430.25	7269.25
		67	7269.50	7430.50	67 '	7430.50	7269.50
		68	7269.75	7430.75	68 '	7430.75	7269.75
		69	7270.00	7431.00	69 '	7431.00	7270.00
		70	7270.25	7431.25	70 '	7431.25	7270.25
		71	7270.50	7431.50	71 '	7431.50	7270.50
		72	7270.75	7431.75	72 '	7431.75	7270.75
		73	7271.00	7432.00	73 '	7432.00	7271.00
		74	7271.25	7432.25	74 '	7432.25	7271.25
		75	7271.50	7432.50	75 '	7432.50	7271.50
		76	7271.75	7432.75	76 '	7432.75	7271.75
		77	7272.00	7433.00	77 '	7433.00	7272.00
		78	7272.25	7433.25	78 '	7433.25	7272.25
		79	7272.50	7433.50	79 '	7433.50	7272.50
		80	7272.75	7433.75	80 '	7433.75	7272.75

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (3/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	G	81	7273.00	7434.00	81 '	7434.00	7273.00
		82	7273.25	7434.25	82 '	7434.25	7273.25
		83	7273.50	7434.50	83 '	7434.50	7273.50
		84	7273.75	7434.75	84 '	7434.75	7273.75
		85	7274.00	7435.00	85 '	7435.00	7274.00
		86	7274.25	7435.25	86 '	7435.25	7274.25
		87	7274.50	7435.50	87 '	7435.50	7274.50
		88	7274.75	7435.75	88 '	7435.75	7274.75
		89	7275.00	7436.00	89 '	7436.00	7275.00
		90	7275.25	7436.25	90 '	7436.25	7275.25
		91	7275.50	7436.50	91 '	7436.50	7275.50
		92	7275.75	7436.75	92 '	7436.75	7275.75
		93	7276.00	7437.00	93 '	7437.00	7276.00
		94	7276.25	7437.25	94 '	7437.25	7276.25
		95	7276.50	7437.50	95 '	7437.50	7276.50
		96	7276.75	7437.75	96 '	7437.75	7276.75
		97	7277.00	7438.00	97 '	7438.00	7277.00
		98	7277.25	7438.25	98 '	7438.25	7277.25
		99	7277.50	7438.50	99 '	7438.50	7277.50
		100	7277.75	7438.75	100 '	7438.75	7277.75
		101	7278.00	7439.00	101 '	7439.00	7278.00
		102	7278.25	7439.25	102 '	7439.25	7278.25
		103	7278.50	7439.50	103 '	7439.50	7278.50
		104	7278.75	7439.75	104 '	7439.75	7278.75
		105	7279.00	7440.00	105 '	7440.00	7279.00
		106	7279.25	7440.25	106 '	7440.25	7279.25
		107	7279.50	7440.50	107 '	7440.50	7279.50
		108	7279.75	7440.75	108 '	7440.75	7279.75
		109	7280.00	7441.00	109 '	7441.00	7280.00
		110	7280.25	7441.25	110 '	7441.25	7280.25
		111	7280.50	7441.50	111 '	7441.50	7280.50
		112	7280.75	7441.75	112 '	7441.75	7280.75
		113	7281.00	7442.00	113 '	7442.00	7281.00
		114	7281.25	7442.25	114 '	7442.25	7281.25
		115	7281.50	7442.50	115 '	7442.50	7281.50
		116	7281.75	7442.75	116 '	7442.75	7281.75
		117	7282.00	7443.00	117 '	7443.00	7282.00
		118	7282.25	7443.25	118 '	7443.25	7282.25
		119	7282.50	7443.50	119 '	7443.50	7282.50
		120	7282.75	7443.75	120 '	7443.75	7282.75

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (4/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	G	121	7283.00	7444.00	121 '	7444.00	7283.00
		122	7283.25	7444.25	122 '	7444.25	7283.25
		123	7283.50	7444.50	123 '	7444.50	7283.50
		124	7283.75	7444.75	124 '	7444.75	7283.75
		125	7284.00	7445.00	125 '	7445.00	7284.00
		126	7284.25	7445.25	126 '	7445.25	7284.25
		127	7284.50	7445.50	127 '	7445.50	7284.50
		128	7284.75	7445.75	128 '	7445.75	7284.75
		129	7285.00	7446.00	129 '	7446.00	7285.00
		130	7285.25	7446.25	130 '	7446.25	7285.25
		131	7285.50	7446.50	131 '	7446.50	7285.50
		132	7285.75	7446.75	132 '	7446.75	7285.75
		133	7286.00	7447.00	133 '	7447.00	7286.00
		134	7286.25	7447.25	134 '	7447.25	7286.25
		135	7286.50	7447.50	135 '	7447.50	7286.50
		136	7286.75	7447.75	136 '	7447.75	7286.75
		137	7287.00	7448.00	137 '	7448.00	7287.00
		138	7287.25	7448.25	138 '	7448.25	7287.25
		139	7287.50	7448.50	139 '	7448.50	7287.50
		140	7287.75	7448.75	140 '	7448.75	7287.75
		141	7288.00	7449.00	141 '	7449.00	7288.00
		142	7288.25	7449.25	142 '	7449.25	7288.25
		143	7288.50	7449.50	143 '	7449.50	7288.50
		144	7288.75	7449.75	144 '	7449.75	7288.75
		145	7289.00	7450.00	145 '	7450.00	7289.00
		146	7289.25	7450.25	146 '	7450.25	7289.25
		147	7289.50	7450.50	147 '	7450.50	7289.50
		148	7289.75	7450.75	148 '	7450.75	7289.75
		149	7290.00	7451.00	149 '	7451.00	7290.00
		150	7290.25	7451.25	150 '	7451.25	7290.25
		151	7290.50	7451.50	151 '	7451.50	7290.50
		152	7290.75	7451.75	152 '	7451.75	7290.75
		153	7291.00	7452.00	153 '	7452.00	7291.00
		154	7291.25	7452.25	154 '	7452.25	7291.25
		155	7291.50	7452.50	155 '	7452.50	7291.50
		156	7291.75	7452.75	156 '	7452.75	7291.75
		157	7292.00	7453.00	157 '	7453.00	7292.00
		158	7292.25	7453.25	158 '	7453.25	7292.25
		159	7292.50	7453.50	159 '	7453.50	7292.50
		160	7292.75	7453.75	160 '	7453.75	7292.75

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (5/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	G	161	7293.00	7454.00	161 '	7454.00	7293.00
		162	7293.25	7454.25	162 '	7454.25	7293.25
		163	7293.50	7454.50	163 '	7454.50	7293.50
		164	7293.75	7454.75	164 '	7454.75	7293.75
		165	7294.00	7455.00	165 '	7455.00	7294.00
		166	7294.25	7455.25	166 '	7455.25	7294.25
		167	7294.50	7455.50	167 '	7455.50	7294.50
		168	7294.75	7455.75	168 '	7455.75	7294.75
		169	7295.00	7456.00	169 '	7456.00	7295.00
		170	7295.25	7456.25	170 '	7456.25	7295.25
		171	7295.50	7456.50	171 '	7456.50	7295.50
		172	7295.75	7456.75	172 '	7456.75	7295.75
		173	7296.00	7457.00	173 '	7457.00	7296.00
		174	7296.25	7457.25	174 '	7457.25	7296.25
		175	7296.50	7457.50	175 '	7457.50	7296.50
		176	7296.75	7457.75	176 '	7457.75	7296.75
		177	7297.00	7458.00	177 '	7458.00	7297.00
		178	7297.25	7458.25	178 '	7458.25	7297.25
		179	7297.50	7458.50	179 '	7458.50	7297.50
		180	7297.75	7458.75	180 '	7458.75	7297.75
		181	7298.00	7459.00	181 '	7459.00	7298.00
		182	7298.25	7459.25	182 '	7459.25	7298.25
		183	7298.50	7459.50	183 '	7459.50	7298.50
		184	7298.75	7459.75	184 '	7459.75	7298.75
		185	7299.00	7460.00	185 '	7460.00	7299.00
		186	7299.25	7460.25	186 '	7460.25	7299.25
		187	7299.50	7460.50	187 '	7460.50	7299.50
		188	7299.75	7460.75	188 '	7460.75	7299.75
		189	7300.00	7461.00	189 '	7461.00	7300.00
		190	7300.25	7461.25	190 '	7461.25	7300.25
		191	7300.50	7461.50	191 '	7461.50	7300.50
		192	7300.75	7461.75	192 '	7461.75	7300.75
		193	7301.00	7462.00	193 '	7462.00	7301.00
		194	7301.25	7462.25	194 '	7462.25	7301.25
		195	7301.50	7462.50	195 '	7462.50	7301.50
		196	7301.75	7462.75	196 '	7462.75	7301.75
		197	7302.00	7463.00	197 '	7463.00	7302.00
		198	7302.25	7463.25	198 '	7463.25	7302.25
		199	7302.50	7463.50	199 '	7463.50	7302.50
		200	7302.75	7463.75	200 '	7463.75	7302.75

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (6/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	G	201	7303.00	7464.00	201 '	7464.00	7303.00
		202	7303.25	7464.25	202 '	7464.25	7303.25
		203	7303.50	7464.50	203 '	7464.50	7303.50
		204	7303.75	7464.75	204 '	7464.75	7303.75
		205	7304.00	7465.00	205 '	7465.00	7304.00
		206	7304.25	7465.25	206 '	7465.25	7304.25
		207	7304.50	7465.50	207 '	7465.50	7304.50
		208	7304.75	7465.75	208 '	7465.75	7304.75
		209	7305.00	7466.00	209 '	7466.00	7305.00
		210	7305.25	7466.25	210 '	7466.25	7305.25
		211	7305.50	7466.50	211 '	7466.50	7305.50
		212	7305.75	7466.75	212 '	7466.75	7305.75
		213	7306.00	7467.00	213 '	7467.00	7306.00
		214	7306.25	7467.25	214 '	7467.25	7306.25
		215	7306.50	7467.50	215 '	7467.50	7306.50
		216	7306.75	7467.75	216 '	7467.75	7306.75
		217	7307.00	7468.00	217 '	7468.00	7307.00
		218	7307.25	7468.25	218 '	7468.25	7307.25
		219	7307.50	7468.50	219 '	7468.50	7307.50
		220	7307.75	7468.75	220 '	7468.75	7307.75
		221	7308.00	7469.00	221 '	7469.00	7308.00
		222	7308.25	7469.25	222 '	7469.25	7308.25
		223	7308.50	7469.50	223 '	7469.50	7308.50
		224	7308.75	7469.75	224 '	7469.75	7308.75
		225	7309.00	7470.00	225 '	7470.00	7309.00
		226	7309.25	7470.25	226 '	7470.25	7309.25
		227	7309.50	7470.50	227 '	7470.50	7309.50
		228	7309.75	7470.75	228 '	7470.75	7309.75
		229	7310.00	7471.00	229 '	7471.00	7310.00
		230	7310.25	7471.25	230 '	7471.25	7310.25
		231	7310.50	7471.50	231 '	7471.50	7310.50
		232	7310.75	7471.75	232 '	7471.75	7310.75
		233	7311.00	7472.00	233 '	7472.00	7311.00
		234	7311.25	7472.25	234 '	7472.25	7311.25
		235	7311.50	7472.50	235 '	7472.50	7311.50
		236	7311.75	7472.75	236 '	7472.75	7311.75
		237	7312.00	7473.00	237 '	7473.00	7312.00
		238	7312.25	7473.25	238 '	7473.25	7312.25
		239	7312.50	7473.50	239 '	7473.50	7312.50
		240	7312.75	7473.75	240 '	7473.75	7312.75

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (7/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	G	241	7313.00	7474.00	241 '	7474.00	7313.00
		242	7313.25	7474.25	242 '	7474.25	7313.25
		243	7313.50	7474.50	243 '	7474.50	7313.50
		244	7313.75	7474.75	244 '	7474.75	7313.75
		245	7314.00	7475.00	245 '	7475.00	7314.00
		246	7314.25	7475.25	246 '	7475.25	7314.25
		247	7314.50	7475.50	247 '	7475.50	7314.50
		248	7314.75	7475.75	248 '	7475.75	7314.75
		249	7315.00	7476.00	249 '	7476.00	7315.00
		250	7315.25	7476.25	250 '	7476.25	7315.25
		251	7315.50	7476.50	251 '	7476.50	7315.50
		252	7315.75	7476.75	252 '	7476.75	7315.75
		253	7316.00	7477.00	253 '	7477.00	7316.00
		254	7316.25	7477.25	254 '	7477.25	7316.25
		255	7316.50	7477.50	255 '	7477.50	7316.50
		256	7316.75	7477.75	256 '	7477.75	7316.75
		257	7317.00	7478.00	257 '	7478.00	7317.00
		258	7317.25	7478.25	258 '	7478.25	7317.25
		259	7317.50	7478.50	259 '	7478.50	7317.50
		260	7317.75	7478.75	260 '	7478.75	7317.75
		261	7318.00	7479.00	261 '	7479.00	7318.00
		262	7318.25	7479.25	262 '	7479.25	7318.25
		263	7318.50	7479.50	263 '	7479.50	7318.50
		264	7318.75	7479.75	264 '	7479.75	7318.75
		265	7319.00	7480.00	265 '	7480.00	7319.00
		266	7319.25	7480.25	266 '	7480.25	7319.25
		267	7319.50	7480.50	267 '	7480.50	7319.50
		268	7319.75	7480.75	268 '	7480.75	7319.75
		269	7320.00	7481.00	269 '	7481.00	7320.00
		270	7320.25	7481.25	270 '	7481.25	7320.25
		271	7320.50	7481.50	271 '	7481.50	7320.50
		272	7320.75	7481.75	272 '	7481.75	7320.75
		273	7321.00	7482.00	273 '	7482.00	7321.00
		274	7321.25	7482.25	274 '	7482.25	7321.25
		275	7321.50	7482.50	275 '	7482.50	7321.50
		276	7321.75	7482.75	276 '	7482.75	7321.75
		277	7322.00	7483.00	277 '	7483.00	7322.00
		278	7322.25	7483.25	278 '	7483.25	7322.25
		279	7322.50	7483.50	279 '	7483.50	7322.50
		280	7322.75	7483.75	280 '	7483.75	7322.75

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (8/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	G	281	7323.00	7484.00	281 '	7484.00	7323.00
		282	7323.25	7484.25	282 '	7484.25	7323.25
		283	7323.50	7484.50	283 '	7484.50	7323.50
		284	7323.75	7484.75	284 '	7484.75	7323.75
		285	7324.00	7485.00	285 '	7485.00	7324.00
		286	7324.25	7485.25	286 '	7485.25	7324.25
		287	7324.50	7485.50	287 '	7485.50	7324.50
		288	7324.75	7485.75	288 '	7485.75	7324.75
		289	7325.00	7486.00	289 '	7486.00	7325.00
		290	7325.25	7486.25	290 '	7486.25	7325.25
		291	7325.50	7486.50	291 '	7486.50	7325.50
		292	7325.75	7486.75	292 '	7486.75	7325.75
		293	7326.00	7487.00	293 '	7487.00	7326.00
		294	7326.25	7487.25	294 '	7487.25	7326.25
		295	7326.50	7487.50	295 '	7487.50	7326.50
		296	7326.75	7487.75	296 '	7487.75	7326.75
		297	7327.00	7488.00	297 '	7488.00	7327.00
		298	7327.25	7488.25	298 '	7488.25	7327.25
		299	7327.50	7488.50	299 '	7488.50	7327.50
		300	7327.75	7488.75	300 '	7488.75	7327.75
		301	7328.00	7489.00	301 '	7489.00	7328.00
		302	7328.25	7489.25	302 '	7489.25	7328.25
		303	7328.50	7489.50	303 '	7489.50	7328.50
		304	7328.75	7489.75	304 '	7489.75	7328.75
		305	7329.00	7490.00	305 '	7490.00	7329.00
		306	7329.25	7490.25	306 '	7490.25	7329.25
		307	7329.50	7490.50	307 '	7490.50	7329.50
		308	7329.75	7490.75	308 '	7490.75	7329.75
		309	7330.00	7491.00	309 '	7491.00	7330.00
		310	7330.25	7491.25	310 '	7491.25	7330.25
		311	7330.50	7491.50	311 '	7491.50	7330.50
		312	7330.75	7491.75	312 '	7491.75	7330.75
		313	7331.00	7492.00	313 '	7492.00	7331.00
		314	7331.25	7492.25	314 '	7492.25	7331.25
		315	7331.50	7492.50	315 '	7492.50	7331.50
		316	7331.75	7492.75	316 '	7492.75	7331.75
		317	7332.00	7493.00	317 '	7493.00	7332.00
		318	7332.25	7493.25	318 '	7493.25	7332.25
		319	7332.50	7493.50	319 '	7493.50	7332.50
		320	7332.75	7493.75	320 '	7493.75	7332.75

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (9/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	G	321	7333.00	7494.00	321 '	7494.00	7333.00
		322	7333.25	7494.25	322 '	7494.25	7333.25
		323	7333.50	7494.50	323 '	7494.50	7333.50
		324	7333.75	7494.75	324 '	7494.75	7333.75
		325	7334.00	7495.00	325 '	7495.00	7334.00
		326	7334.25	7495.25	326 '	7495.25	7334.25
		327	7334.50	7495.50	327 '	7495.50	7334.50
		328	7334.75	7495.75	328 '	7495.75	7334.75
		329	7335.00	7496.00	329 '	7496.00	7335.00
		330	7335.25	7496.25	330 '	7496.25	7335.25
		331	7335.50	7496.50	331 '	7496.50	7335.50
		332	7335.75	7496.75	332 '	7496.75	7335.75
		333	7336.00	7497.00	333 '	7497.00	7336.00
		334	7336.25	7497.25	334 '	7497.25	7336.25
		335	7336.50	7497.50	335 '	7497.50	7336.50
		336	7336.75	7497.75	336 '	7497.75	7336.75
		337	7337.00	7498.00	337 '	7498.00	7337.00
		338	7337.25	7498.25	338 '	7498.25	7337.25
		339	7337.50	7498.50	339 '	7498.50	7337.50
		340	7337.75	7498.75	340 '	7498.75	7337.75
		341	7338.00	7499.00	341 '	7499.00	7338.00
		342	7338.25	7499.25	342 '	7499.25	7338.25
		343	7338.50	7499.50	343 '	7499.50	7338.50
		344	7338.75	7499.75	344 '	7499.75	7338.75
		345	7339.00	7500.00	345 '	7500.00	7339.00
		346	7339.25	7500.25	346 '	7500.25	7339.25
		347	7339.50	7500.50	347 '	7500.50	7339.50
		348	7339.75	7500.75	348 '	7500.75	7339.75
		349	7340.00	7501.00	349 '	7501.00	7340.00
		350	7340.25	7501.25	350 '	7501.25	7340.25
		351	7340.50	7501.50	351 '	7501.50	7340.50
		352	7340.75	7501.75	352 '	7501.75	7340.75
		353	7341.00	7502.00	353 '	7502.00	7341.00
		354	7341.25	7502.25	354 '	7502.25	7341.25
		355	7341.50	7502.50	355 '	7502.50	7341.50
		356	7341.75	7502.75	356 '	7502.75	7341.75
357	7342.00	7503.00	357 '	7503.00	7342.00		
358	7342.25	7503.25	358 '	7503.25	7342.25		
359	7342.50	7503.50	359 '	7503.50	7342.50		
360	7342.75	7503.75	360 '	7503.75	7342.75		

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (10/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	G	361	7343.00	7504.00	361 '	7504.00	7343.00
		362	7343.25	7504.25	362 '	7504.25	7343.25
		363	7343.50	7504.50	363 '	7504.50	7343.50
		364	7343.75	7504.75	364 '	7504.75	7343.75
		365	7344.00	7505.00	365 '	7505.00	7344.00
		366	7344.25	7505.25	366 '	7505.25	7344.25
		367	7344.50	7505.50	367 '	7505.50	7344.50
		368	7344.75	7505.75	368 '	7505.75	7344.75
		369	7345.00	7506.00	369 '	7506.00	7345.00
		370	7345.25	7506.25	370 '	7506.25	7345.25
		371	7345.50	7506.50	371 '	7506.50	7345.50
		372	7345.75	7506.75	372 '	7506.75	7345.75
		373	7346.00	7507.00	373 '	7507.00	7346.00
		374	7346.25	7507.25	374 '	7507.25	7346.25
		375	7346.50	7507.50	375 '	7507.50	7346.50
		376	7346.75	7507.75	376 '	7507.75	7346.75
		377	7347.00	7508.00	377 '	7508.00	7347.00
		378	7347.25	7508.25	378 '	7508.25	7347.25
		379	7347.50	7508.50	379 '	7508.50	7347.50
		380	7347.75	7508.75	380 '	7508.75	7347.75
		381	7348.00	7509.00	381 '	7509.00	7348.00
		382	7348.25	7509.25	382 '	7509.25	7348.25
		383	7348.50	7509.50	383 '	7509.50	7348.50
		384	7348.75	7509.75	384 '	7509.75	7348.75
		385	7349.00	7510.00	385 '	7510.00	7349.00
		386	7349.25	7510.25	386 '	7510.25	7349.25
		387	7349.50	7510.50	387 '	7510.50	7349.50
		388	7349.75	7510.75	388 '	7510.75	7349.75
		389	7350.00	7511.00	389 '	7511.00	7350.00
		390	7350.25	7511.25	390 '	7511.25	7350.25
		391	7350.50	7511.50	391 '	7511.50	7350.50
		392	7350.75	7511.75	392 '	7511.75	7350.75
		393	7351.00	7512.00	393 '	7512.00	7351.00
		394	7351.25	7512.25	394 '	7512.25	7351.25
		395	7351.50	7512.50	395 '	7512.50	7351.50
		396	7351.75	7512.75	396 '	7512.75	7351.75
		397	7352.00	7513.00	397 '	7513.00	7352.00
		398	7352.25	7513.25	398 '	7513.25	7352.25
		399	7352.50	7513.50	399 '	7513.50	7352.50
		400	7352.75	7513.75	400 '	7513.75	7352.75

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (11/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	G	401	7353.00	7514.00	401 '	7514.00	7353.00
		402	7353.25	7514.25	402 '	7514.25	7353.25
		403	7353.50	7514.50	403 '	7514.50	7353.50
		404	7353.75	7514.75	404 '	7514.75	7353.75
		405	7354.00	7515.00	405 '	7515.00	7354.00
		406	7354.25	7515.25	406 '	7515.25	7354.25
		407	7354.50	7515.50	407 '	7515.50	7354.50
		408	7354.75	7515.75	408 '	7515.75	7354.75
		409	7355.00	7516.00	409 '	7516.00	7355.00
		410	7355.25	7516.25	410 '	7516.25	7355.25
		411	7355.50	7516.50	411 '	7516.50	7355.50
		412	7355.75	7516.75	412 '	7516.75	7355.75
		413	7356.00	7517.00	413 '	7517.00	7356.00
		414	7356.25	7517.25	414 '	7517.25	7356.25
		415	7356.50	7517.50	415 '	7517.50	7356.50
		416	7356.75	7517.75	416 '	7517.75	7356.75
		417	7357.00	7518.00	417 '	7518.00	7357.00
		418	7357.25	7518.25	418 '	7518.25	7357.25
		419	7357.50	7518.50	419 '	7518.50	7357.50
		420	7357.75	7518.75	420 '	7518.75	7357.75
		421	7358.00	7519.00	421 '	7519.00	7358.00
		422	7358.25	7519.25	422 '	7519.25	7358.25
		423	7358.50	7519.50	423 '	7519.50	7358.50
		424	7358.75	7519.75	424 '	7519.75	7358.75
		425	7359.00	7520.00	425 '	7520.00	7359.00
		426	7359.25	7520.25	426 '	7520.25	7359.25
		427	7359.50	7520.50	427 '	7520.50	7359.50
		428	7359.75	7520.75	428 '	7520.75	7359.75
		429	7360.00	7521.00	429 '	7521.00	7360.00
		430	7360.25	7521.25	430 '	7521.25	7360.25
		431	7360.50	7521.50	431 '	7521.50	7360.50
		432	7360.75	7521.75	432 '	7521.75	7360.75
		433	7361.00	7522.00	433 '	7522.00	7361.00
		434	7361.25	7522.25	434 '	7522.25	7361.25
		435	7361.50	7522.50	435 '	7522.50	7361.50
		436	7361.75	7522.75	436 '	7522.75	7361.75
		437	7362.00	7523.00	437 '	7523.00	7362.00
		438	7362.25	7523.25	438 '	7523.25	7362.25
		439	7362.50	7523.50	439 '	7523.50	7362.50
		440	7362.75	7523.75	440 '	7523.75	7362.75

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (12/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.		
NWA009026()	G	441	7363.00	7524.00	441 '	7524.00	7363.00
		442	7363.25	7524.25	442 '	7524.25	7363.25
		443	7363.50	7524.50	443 '	7524.50	7363.50
		444	7363.75	7524.75	444 '	7524.75	7363.75
		445	7364.00	7525.00	445 '	7525.00	7364.00
		446	7364.25	7525.25	446 '	7525.25	7364.25
		447	7364.50	7525.50	447 '	7525.50	7364.50
		448	7364.75	7525.75	448 '	7525.75	7364.75
		449	7365.00	7526.00	449 '	7526.00	7365.00
		450	7365.25	7526.25	450 '	7526.25	7365.25
		451	7365.50	7526.50	451 '	7526.50	7365.50
		452	7365.75	7526.75	452 '	7526.75	7365.75
		453	7366.00	7527.00	453 '	7527.00	7366.00
		454	7366.25	7527.25	454 '	7527.25	7366.25
		455	7366.50	7527.50	455 '	7527.50	7366.50
		456	7366.75	7527.75	456 '	7527.75	7366.75
		457	7367.00	7528.00	457 '	7528.00	7367.00
		458	7367.25	7528.25	458 '	7528.25	7367.25
		459	7367.50	7528.50	459 '	7528.50	7367.50
		460	7367.75	7528.75	460 '	7528.75	7367.75
		461	7368.00	7529.00	461 '	7529.00	7368.00
		462	7368.25	7529.25	462 '	7529.25	7368.25
		463	7368.50	7529.50	463 '	7529.50	7368.50
		464	7368.75	7529.75	464 '	7529.75	7368.75
		465	7369.00	7530.00	465 '	7530.00	7369.00
		466	7369.25	7530.25	466 '	7530.25	7369.25
		467	7369.50	7530.50	467 '	7530.50	7369.50
		468	7369.75	7530.75	468 '	7530.75	7369.75
		469	7370.00	7531.00	469 '	7531.00	7370.00
		470	7370.25	7531.25	470 '	7531.25	7370.25
		471	7370.50	7531.50	471 '	7531.50	7370.50
		472	7370.75	7531.75	472 '	7531.75	7370.75
		473	7371.00	7532.00	473 '	7532.00	7371.00
		474	7371.25	7532.25	474 '	7532.25	7371.25
		475	7371.50	7532.50	475 '	7532.50	7371.50
		476	7371.75	7532.75	476 '	7532.75	7371.75
		477	7372.00	7533.00	477 '	7533.00	7372.00
		478	7372.25	7533.25	478 '	7533.25	7372.25
		479	7372.50	7533.50	479 '	7533.50	7372.50
		480	7372.75	7533.75	480 '	7533.75	7372.75

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (13/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	G	481	7373.00	7534.00	481 '	7534.00	7373.00
		482	7373.25	7534.25	482 '	7534.25	7373.25
		483	7373.50	7534.50	483 '	7534.50	7373.50
		484	7373.75	7534.75	484 '	7534.75	7373.75
		485	7374.00	7535.00	485 '	7535.00	7374.00
		486	7374.25	7535.25	486 '	7535.25	7374.25
		487	7374.50	7535.50	487 '	7535.50	7374.50
		488	7374.75	7535.75	488 '	7535.75	7374.75
		489	7375.00	7536.00	489 '	7536.00	7375.00
		490	7375.25	7536.25	490 '	7536.25	7375.25
		491	7375.50	7536.50	491 '	7536.50	7375.50
		492	7375.75	7536.75	492 '	7536.75	7375.75
		493	7376.00	7537.00	493 '	7537.00	7376.00
		494	7376.25	7537.25	494 '	7537.25	7376.25
		495	7376.50	7537.50	495 '	7537.50	7376.50
		496	7376.75	7537.75	496 '	7537.75	7376.75
		497	7377.00	7538.00	497 '	7538.00	7377.00
		498	7377.25	7538.25	498 '	7538.25	7377.25
		499	7377.50	7538.50	499 '	7538.50	7377.50
		500	7377.75	7538.75	500 '	7538.75	7377.75
		501	7378.00	7539.00	501 '	7539.00	7378.00
		502	7378.25	7539.25	502 '	7539.25	7378.25
		503	7378.50	7539.50	503 '	7539.50	7378.50
		504	7378.75	7539.75	504 '	7539.75	7378.75
		505	7379.00	7540.00	505 '	7540.00	7379.00
		506	7379.25	7540.25	506 '	7540.25	7379.25
		507	7379.50	7540.50	507 '	7540.50	7379.50
		508	7379.75	7540.75	508 '	7540.75	7379.75
		509	7380.00	7541.00	509 '	7541.00	7380.00
		510	7380.25	7541.25	510 '	7541.25	7380.25
		511	7380.50	7541.50	511 '	7541.50	7380.50
		512	7380.75	7541.75	512 '	7541.75	7380.75
513	7381.00	7542.00	513 '	7542.00	7381.00		
514	7381.25	7542.25	514 '	7542.25	7381.25		
515	7381.50	7542.50	515 '	7542.50	7381.50		
516	7381.75	7542.75	516 '	7542.75	7381.75		
517	7382.00	7543.00	517 '	7543.00	7382.00		
518	7382.25	7543.25	518 '	7543.25	7382.25		
519	7382.50	7543.50	519 '	7543.50	7382.50		
520	7382.75	7543.75	520 '	7543.75	7382.75		

**Table A-12 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): RUSSIA (14/14)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7253.00 to 7392.75 MHz		7414.00 to 7553.75 MHz		Lower Band	
		7414.00 to 7553.75 MHz		7253.00 to 7392.75 MHz		Higher Band	
		TX Low			TX High		
RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.		
NWA009026()	G	521	7383.00	7544.00	521 '	7544.00	7383.00
		522	7383.25	7544.25	522 '	7544.25	7383.25
		523	7383.50	7544.50	523 '	7544.50	7383.50
		524	7383.75	7544.75	524 '	7544.75	7383.75
		525	7384.00	7545.00	525 '	7545.00	7384.00
		526	7384.25	7545.25	526 '	7545.25	7384.25
		527	7384.50	7545.50	527 '	7545.50	7384.50
		528	7384.75	7545.75	528 '	7545.75	7384.75
		529	7385.00	7546.00	529 '	7546.00	7385.00
		530	7385.25	7546.25	530 '	7546.25	7385.25
		531	7385.50	7546.50	531 '	7546.50	7385.50
		532	7385.75	7546.75	532 '	7546.75	7385.75
		533	7386.00	7547.00	533 '	7547.00	7386.00
		534	7386.25	7547.25	534 '	7547.25	7386.25
		535	7386.50	7547.50	535 '	7547.50	7386.50
		536	7386.75	7547.75	536 '	7547.75	7386.75
		537	7387.00	7548.00	537 '	7548.00	7387.00
		538	7387.25	7548.25	538 '	7548.25	7387.25
		539	7387.50	7548.50	539 '	7548.50	7387.50
		540	7387.75	7548.75	540 '	7548.75	7387.75
		541	7388.00	7549.00	541 '	7549.00	7388.00
		542	7388.25	7549.25	542 '	7549.25	7388.25
		543	7388.50	7549.50	543 '	7549.50	7388.50
		544	7388.75	7549.75	544 '	7549.75	7388.75
		545	7389.00	7550.00	545 '	7550.00	7389.00
		546	7389.25	7550.25	546 '	7550.25	7389.25
		547	7389.50	7550.50	547 '	7550.50	7389.50
		548	7389.75	7550.75	548 '	7550.75	7389.75
		549	7390.00	7551.00	549 '	7551.00	7390.00
		550	7390.25	7551.25	550 '	7551.25	7390.25
		551	7390.50	7551.50	551 '	7551.50	7390.50
		552	7390.75	7551.75	552 '	7551.75	7390.75
		553	7391.00	7552.00	553 '	7552.00	7391.00
		554	7391.25	7552.25	554 '	7552.25	7391.25
		555	7391.50	7552.50	555 '	7552.50	7391.50
		556	7391.75	7552.75	556 '	7552.75	7391.75
		557	7392.00	7553.00	557 '	7553.00	7392.00
		558	7392.25	7553.25	558 '	7553.25	7392.25
		559	7392.50	7553.50	559 '	7553.50	7392.50
		560	7392.75	7553.75	560 '	7553.75	7392.75

**Table A-13 7 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 161 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7549.5 to 7686.0 MHz		7710.5 to 7847.0 MHz		Lower Band	
		7710.5 to 7847.0 MHz		7549.5 to 7686.0 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	H	1	7549.5	7710.5	1'	7710.5	7549.5
		2	7553.0	7714.0	2'	7714.0	7553.0
		3	7556.5	7717.5	3'	7717.5	7556.5
		4	7560.0	7721.0	4'	7721.0	7560.0
		5	7563.5	7724.5	5'	7724.5	7563.5
		6	7567.0	7728.0	6'	7728.0	7567.0
		7	7570.5	7731.5	7'	7731.5	7570.5
		8	7574.0	7735.0	8'	7735.0	7574.0
		9	7577.5	7738.5	9'	7738.5	7577.5
		10	7581.0	7742.0	10'	7742.0	7581.0
		11	7584.5	7745.5	11'	7745.5	7584.5
		12	7588.0	7749.0	12'	7749.0	7588.0
		13	7591.5	7752.5	13'	7752.5	7591.5
		14	7595.0	7756.0	14'	7756.0	7595.0
		15	7598.5	7759.5	15'	7759.5	7598.5
		16	7602.0	7763.0	16'	7763.0	7602.0
		17	7605.5	7766.5	17'	7766.5	7605.5
		18	7609.0	7770.0	18'	7770.0	7609.0
		19	7612.5	7773.5	19'	7773.5	7612.5
		20	7616.0	7777.0	20'	7777.0	7616.0
		21	7619.5	7780.5	21'	7780.5	7619.5
		22	7623.0	7784.0	22'	7784.0	7623.0
		23	7626.5	7787.5	23'	7787.5	7626.5
		24	7630.0	7791.0	24'	7791.0	7630.0
		25	7633.5	7794.5	25'	7794.5	7633.5
		26	7637.0	7798.0	26'	7798.0	7637.0
		27	7640.5	7801.5	27'	7801.5	7640.5
		28	7644.0	7805.0	28'	7805.0	7644.0
		29	7647.5	7808.5	29'	7808.5	7647.5
		30	7651.0	7812.0	30'	7812.0	7651.0
		31	7654.5	7815.5	31'	7815.5	7654.5
		32	7658.0	7819.0	32'	7819.0	7658.0
		33	7661.5	7822.5	33'	7822.5	7661.5
		34	7665.0	7826.0	34'	7826.0	7665.0
		35	7668.5	7829.5	35'	7829.5	7668.5
		36	7672.0	7833.0	36'	7833.0	7672.0
		37	7675.5	7836.5	37'	7836.5	7675.5
		38	7679.0	7840.0	38'	7840.0	7679.0
		39	7682.5	7843.5	39'	7843.5	7682.5
		40	7686.0	7847.0	40'	7847.0	7686.0

Table A-14 7 GHz, Sub-band J versus Frequency Range
(TX-RX frequency spacing: 245 MHz): UNITED KINGDOM (1/2)

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7431.5 to 7652.0 MHz		7676.5 to 7897.0 MHz		Lower Band	
		7676.5 to 7897.0 MHz		7431.5 to 7652.0 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	J	1	7431.5	7676.5	1'	7676.5	7431.5
		2	7435.0	7680.0	2'	7680.0	7435.0
		3	7438.5	7683.5	3'	7683.5	7438.5
		4	7442.0	7687.0	4'	7687.0	7442.0
		5	7445.5	7690.5	5'	7690.5	7445.5
		6	7449.0	7694.0	6'	7694.0	7449.0
		7	7452.5	7697.5	7'	7697.5	7452.5
		8	7456.0	7701.0	8'	7701.0	7456.0
		9	7459.5	7704.5	9'	7704.5	7459.5
		10	7463.0	7708.0	10'	7708.0	7463.0
		11	7466.5	7711.5	11'	7711.5	7466.5
		12	7470.0	7715.0	12'	7715.0	7470.0
		13	7473.5	7718.5	13'	7718.5	7473.5
		14	7477.0	7722.0	14'	7722.0	7477.0
		15	7480.5	7725.5	15'	7725.5	7480.5
		16	7484.0	7729.0	16'	7729.0	7484.0
		17	7487.5	7732.5	17'	7732.5	7487.5
		18	7491.0	7736.0	18'	7736.0	7491.0
		19	7494.5	7739.5	19'	7739.5	7494.5
		20	7498.0	7743.0	20'	7743.0	7498.0
		21	7501.5	7746.5	21'	7746.5	7501.5
		22	7505.0	7750.0	22'	7750.0	7505.0
		23	7508.5	7753.5	23'	7753.5	7508.5
		24	7512.0	7757.0	24'	7757.0	7512.0
		25	7515.5	7760.5	25'	7760.5	7515.5
		26	7519.0	7764.0	26'	7764.0	7519.0
		27	7522.5	7767.5	27'	7767.5	7522.5
		28	7526.0	7771.0	28'	7771.0	7526.0
		29	7529.5	7774.5	29'	7774.5	7529.5
		30	7533.0	7778.0	30'	7778.0	7533.0
		31	7536.5	7781.5	31'	7781.5	7536.5
		32	7540.0	7785.0	32'	7785.0	7540.0
		33	7543.5	7788.5	33'	7788.5	7543.5
		34	7547.0	7792.0	34'	7792.0	7547.0
		35	7550.5	7795.5	35'	7795.5	7550.5
		36	7554.0	7799.0	36'	7799.0	7554.0
		37	7557.5	7802.5	37'	7802.5	7557.5
		38	7561.0	7806.0	38'	7806.0	7561.0
		39	7564.5	7809.5	39'	7809.5	7564.5
		40	7568.0	7813.0	40'	7813.0	7568.0

Table A-14 7 GHz, Sub-band J versus Frequency Range
(TX-RX frequency spacing: 245 MHz): UNITED KINGDOM (2/2)

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7431.5 to 7652.0 MHz		7676.5 to 7897.0 MHz		Lower Band	
		7676.5 to 7897.0 MHz		7431.5 to 7652.0 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009026()	J	41	7571.5	7816.5	41'	7816.5	7571.5
		42	7575.0	7820.0	42'	7820.0	7575.0
		43	7578.5	7823.5	43'	7823.5	7578.5
		44	7582.0	7827.0	44'	7827.0	7582.0
		45	7585.5	7830.5	45'	7830.5	7585.5
		46	7589.0	7834.0	46'	7834.0	7589.0
		47	7592.5	7837.5	47'	7837.5	7592.5
		48	7596.0	7841.0	48'	7841.0	7596.0
		49	7599.5	7844.5	49'	7844.5	7599.5
		50	7603.0	7848.0	50'	7848.0	7603.0
		51	7606.5	7851.5	51'	7851.5	7606.5
		52	7610.0	7855.0	52'	7855.0	7610.0
		53	7613.5	7858.5	53'	7858.5	7613.5
		54	7617.0	7862.0	54'	7862.0	7617.0
		55	7620.5	7865.5	55'	7865.5	7620.5
		56	7624.0	7869.0	56'	7869.0	7624.0
		57	7627.5	7872.5	57'	7872.5	7627.5
		58	7631.0	7876.0	58'	7876.0	7631.0
		59	7634.5	7879.5	59'	7879.5	7634.5
		60	7638.0	7883.0	60'	7883.0	7638.0
		61	7641.5	7886.5	61'	7886.5	7641.5
		62	7645.0	7890.0	62'	7890.0	7645.0
		63	7648.5	7893.5	63'	7893.5	7648.5
		64	7652.0	7897.0	64'	7897.0	7652.0

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

4. 8 GHz Band

**Table A-15 8 GHz, Sub-band E versus Frequency Range
(TX-RX frequency spacing: 119 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		8286 to 8363 MHz		8405 to 8482 MHz		Lower Band	
		8405 to 8482 MHz		8286 to 8363 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009028()	E	1	8286	8405	1'	8405	8286
		2	8293	8412	2'	8412	8293
		3	8300	8419	3'	8419	8300
		4	8307	8426	4'	8426	8307
		5	8314	8433	5'	8433	8314
		6	8321	8440	6'	8440	8321
		7	8328	8447	7'	8447	8328
		8	8335	8454	8'	8454	8335
		9	8342	8461	9'	8461	8342
		10	8349	8468	10'	8468	8349
		11	8356	8475	11'	8475	8356
		12	8363	8482	12'	8482	8363

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

**Table A-16 8 GHz, Sub-band E versus Frequency Range
(TX-RX frequency spacing: 126 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		8282.5 to 8363.0 MHz		8408.5 to 8489.0 MHz		Lower Band	
		8408.5 to 8489.0 MHz		8282.5 to 8363.0 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009028()	E	1	8282.5	8408.5	1'	8408.5	8282.5
		2	8286.0	8412.0	2'	8412.0	8286.0
		3	8289.5	8415.5	3'	8415.5	8289.5
		4	8293.0	8419.0	4'	8419.0	8293.0
		5	8296.5	8422.5	5'	8422.5	8296.5
		6	8300.0	8426.0	6'	8426.0	8300.0
		7	8303.5	8429.5	7'	8429.5	8303.5
		8	8307.0	8433.0	8'	8433.0	8307.0
		9	8310.5	8436.5	9'	8436.5	8310.5
		10	8314.0	8440.0	10'	8440.0	8314.0
		11	8317.5	8443.5	11'	8443.5	8317.5
		12	8321.0	8447.0	12'	8447.0	8321.0
		13	8324.5	8450.5	13'	8450.5	8324.5
		14	8328.0	8454.0	14'	8454.0	8328.0
		15	8331.5	8457.5	15'	8457.5	8331.5
		16	8335.0	8461.0	16'	8461.0	8335.0
		17	8338.5	8464.5	17'	8464.5	8338.5
		18	8342.0	8468.0	18'	8468.0	8342.0
		19	8345.5	8471.5	19'	8471.5	8345.5
		20	8349.0	8475.0	20'	8475.0	8349.0
		21	8352.5	8478.5	21'	8478.5	8352.5
		22	8356.0	8482.0	22'	8482.0	8356.0
		23	8359.5	8485.5	23'	8485.5	8359.5
		24	8363.0	8489.0	24'	8489.0	8363.0

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

**Table A-17 8 GHz, Sub-band E versus Frequency Range
(TX-RX frequency spacing: 151.614 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		8204.217 to 8338.330 MHz		8355.831 to 8489.944 MHz		Lower Band	
		8355.831 to 8489.944 MHz		8204.217 to 8338.330 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009028()	E	1	8204.217	8355.831	1'	8355.831	8204.217
		2	8210.048	8361.662	2'	8361.662	8210.048
		3	8215.879	8367.493	3'	8367.493	8215.879
		4	8221.710	8373.324	4'	8373.324	8221.710
		5	8227.541	8379.155	5'	8379.155	8227.541
		6	8233.372	8384.986	6'	8384.986	8233.372
		7	8239.203	8390.817	7'	8390.817	8239.203
		8	8245.034	8396.648	8'	8396.648	8245.034
		9	8250.865	8402.479	9'	8402.479	8250.865
		10	8256.696	8408.310	10'	8408.310	8256.696
		11	8262.527	8414.141	11'	8414.141	8262.527
		12	8268.358	8419.972	12'	8419.972	8268.358
		13	8274.189	8425.803	13'	8425.803	8274.189
		14	8280.020	8431.634	14'	8431.634	8280.020
		15	8285.851	8437.465	15'	8437.465	8285.851
		16	8291.682	8443.296	16'	8443.296	8291.682
		17	8297.513	8449.127	17'	8449.127	8297.513
		18	8303.344	8454.958	18'	8454.958	8303.344
		19	8309.175	8460.789	19'	8460.789	8309.175
		20	8315.006	8466.620	20'	8466.620	8315.006
		21	8320.837	8472.451	21'	8472.451	8320.837
		22	8326.668	8478.282	22'	8478.282	8326.668
		23	8332.499	8484.113	23'	8484.113	8332.499
		24	8338.330	8489.944	24'	8489.944	8338.330

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

**Table A-18 8 GHz, Sub-band E versus Frequency Range
(TX-RX frequency spacing: 154 MHz): NORWAY**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		8203 to 8329 MHz		8357 to 8483 MHz		Lower Band	
		8357 to 8483 MHz		8203 to 8329 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009028()	E	1	8203	8357	1'	8357	8203
		2	8217	8371	2'	8371	8217
		3	8231	8385	3'	8385	8231
		4	8245	8399	4'	8399	8245
		5	8259	8413	5'	8413	8259
		6	8273	8427	6'	8427	8273
		7	8287	8441	7'	8441	8287
		8	8301	8455	8'	8455	8301
		9	8315	8469	9'	8469	8315
		10	8329	8483	10'	8483	8329

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

Table A-19 8 GHz, Sub-band F versus Frequency Range
(TX-RX frequency spacing: 266 MHz): STANDARD (1/2)

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7908.5 to 8129.0 MHz		8174.5 to 8395.0 MHz		Lower Band	
		8174.5 to 8395.0 MHz		7908.5 to 8129.0 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009028()	F	1	7908.50	8174.50	1'	8174.50	7908.50
		2	7912.00	8178.00	2'	8178.00	7912.00
		3	7915.50	8181.50	3'	8181.50	7915.50
		4	7919.00	8185.00	4'	8185.00	7919.00
		5	7922.50	8188.50	5'	8188.50	7922.50
		6	7926.00	8192.00	6'	8192.00	7926.00
		7	7929.50	8195.50	7'	8195.50	7929.50
		8	7933.00	8199.00	8'	8199.00	7933.00
		9	7936.50	8202.50	9'	8202.50	7936.50
		10	7940.00	8206.00	10'	8206.00	7940.00
		11	7943.50	8209.50	11'	8209.50	7943.50
		12	7947.00	8213.00	12'	8213.00	7947.00
		13	7950.50	8216.50	13'	8216.50	7950.50
		14	7954.00	8220.00	14'	8220.00	7954.00
		15	7957.50	8223.50	15'	8223.50	7957.50
		16	7961.00	8227.00	16'	8227.00	7961.00
		17	7964.50	8230.50	17'	8230.50	7964.50
		18	7968.00	8234.00	18'	8234.00	7968.00
		19	7971.50	8237.50	19'	8237.50	7971.50
		20	7975.00	8241.00	20'	8241.00	7975.00
		21	7978.50	8244.50	21'	8244.50	7978.50
		22	7982.00	8248.00	22'	8248.00	7982.00
		23	7985.50	8251.50	23'	8251.50	7985.50
		24	7989.00	8255.00	24'	8255.00	7989.00
		25	7992.50	8258.50	25'	8258.50	7992.50
		26	7996.00	8262.00	26'	8262.00	7996.00
		27	7999.50	8265.50	27'	8265.50	7999.50
		28	8003.00	8269.00	28'	8269.00	8003.00
		29	8006.50	8272.50	29'	8272.50	8006.50
		30	8010.00	8276.00	30'	8276.00	8010.00
		31	8013.50	8279.50	31'	8279.50	8013.50
		32	8017.00	8283.00	32'	8283.00	8017.00
		33	8020.50	8286.50	33'	8286.50	8020.50
		34	8024.00	8290.00	34'	8290.00	8024.00
		35	8027.50	8293.50	35'	8293.50	8027.50
		36	8031.00	8297.00	36'	8297.00	8031.00
		37	8034.50	8300.50	37'	8300.50	8034.50
		38	8038.00	8304.00	38'	8304.00	8038.00
		39	8041.50	8307.50	39'	8307.50	8041.50
		40	8045.00	8311.00	40'	8311.00	8045.00

**Table A-19 8 GHz, Sub-band F versus Frequency Range
(TX-RX frequency spacing: 266 MHz): STANDARD (2/2)**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7908.5 to 8129.0 MHz		8174.5 to 8395.0 MHz		Lower Band	
		8174.5 to 8395.0 MHz		7908.5 to 8129.0 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009028()	F	41	8048.50	8314.50	41'	8314.50	8048.50
		42	8052.00	8318.00	42'	8318.00	8052.00
		43	8055.50	8321.50	43'	8321.50	8055.50
		44	8059.00	8325.00	44'	8325.00	8059.00
		45	8062.50	8328.50	45'	8328.50	8062.50
		46	8066.00	8332.00	46'	8332.00	8066.00
		47	8069.50	8335.50	47'	8335.50	8069.50
		48	8073.00	8339.00	48'	8339.00	8073.00
		49	8076.50	8342.50	49'	8342.50	8076.50
		50	8080.00	8346.00	50'	8346.00	8080.00
		51	8083.50	8349.50	51'	8349.50	8083.50
		52	8087.00	8353.00	52'	8353.00	8087.00
		53	8090.50	8356.50	53'	8356.50	8090.50
		54	8094.00	8360.00	54'	8360.00	8094.00
		55	8097.50	8363.50	55'	8363.50	8097.50
		56	8101.00	8367.00	56'	8367.00	8101.00
		57	8104.50	8370.50	57'	8370.50	8104.50
		58	8108.00	8374.00	58'	8374.00	8108.00
		59	8111.50	8377.50	59'	8377.50	8111.50
		60	8115.00	8381.00	60'	8381.00	8115.00
		61	8118.50	8384.50	61'	8384.50	8118.50
		62	8122.00	8388.00	62'	8388.00	8122.00
		63	8125.50	8391.50	63'	8391.50	8125.50
		64	8129.00	8395.00	64'	8395.00	8129.00

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

**Table A-20 8 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 294.44 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7730.56 to 7954.63 MHz		8025.00 to 8249.07 MHz		Lower Band	
		8025.00 to 8249.07 MHz		7730.56 to 7954.63 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009028()	G	1	7730.56	8025.00	1'	8025.00	7730.56
		2	7750.93	8045.37	2'	8045.37	7750.93
		3	7771.30	8065.74	3'	8065.74	7771.30
		4	7791.67	8086.11	4'	8086.11	7791.67
		5	7812.04	8106.48	5'	8106.48	7812.04
		6	7832.41	8126.85	6'	8126.85	7832.41
		7	7852.78	8147.22	7'	8147.22	7852.78
		8	7873.15	8167.59	8'	8167.59	7873.15
		9	7893.52	8187.96	9'	8187.96	7893.52
		10	7913.89	8208.33	10'	8208.33	7913.89
		11	7934.26	8228.70	11'	8228.70	7934.26
		12	7954.63	8249.07	12'	8249.07	7954.63

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

**Table A-21 8 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 305.56 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7745.37 to 7969.44 MHz		8050.93 to 8275.00 MHz		Lower Band	
		8050.93 to 8275.00 MHz		7745.37 to 7969.44 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009028()	G	1	7745.37	8050.93	1'	8050.93	7745.37
		2	7765.74	8071.30	2'	8071.30	7765.74
		3	7786.11	8091.67	3'	8091.67	7786.11
		4	7806.48	8112.04	4'	8112.04	7806.48
		5	7826.85	8132.41	5'	8132.41	7826.85
		6	7847.22	8152.78	6'	8152.78	7847.22
		7	7867.59	8173.15	7'	8173.15	7867.59
		8	7887.96	8193.52	8'	8193.52	7887.96
		9	7908.33	8213.89	9'	8213.89	7908.33
		10	7928.70	8234.26	10'	8234.26	7928.70
		11	7949.07	8254.63	11'	8254.63	7949.07
		12	7969.44	8275.00	12'	8275.00	7969.44

**Table A-22 8 GHz, Sub-band G versus Frequency Range
(TX-RX frequency spacing: 311.32 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range		RX Radio Point Frequency Range		TX HIGH/LOW	
		7732.875 to 7955.250 MHz		8044.195 to 8266.570 MHz		Lower Band	
		8044.195 to 8266.570 MHz		7732.875 to 7955.250 MHz		Higher Band	
		TX Low			TX High		
		RF CH	TX Point Freq.	RX Point Freq.	RF CH	TX Point Freq.	RX Point Freq.
NWA009028()	G	1	7732.875	8044.195	1’	8044.195	7732.875
		2	7747.700	8059.020	2’	8059.020	7747.700
		3	7762.525	8073.845	3’	8073.845	7762.525
		4	7777.350	8088.670	4’	8088.670	7777.350
		5	7792.175	8103.495	5’	8103.495	7792.175
		6	7807.000	8118.320	6’	8118.320	7807.000
		7	7821.825	8133.145	7’	8133.145	7821.825
		8	7836.650	8147.970	8’	8147.970	7836.650
		9	7851.475	8162.795	9’	8162.795	7851.475
		10	7866.300	8177.620	10’	8177.620	7866.300
		11	7881.125	8192.445	11’	8192.445	7881.125
		12	7895.950	8207.270	12’	8207.270	7895.950
		13	7910.775	8222.095	13’	8222.095	7910.775
		14	7925.600	8236.920	14’	8236.920	7925.600
		15	7940.425	8251.745	15’	8251.745	7940.425
		16	7955.250	8266.570	16’	8266.570	7955.250

Note: It is required to define point frequency which is to be used. The BPF for 6/7/8 GHz is set to each frequency though it is within the same Sub Band. To change the point frequency, not only LCT setup, but also the change of BPF is needed.

5. 11 GHz Band

**Table A-23 11 GHz, Sub-band A/B/C/D versus Frequency
(TX-RX frequency spacing: 490 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009032()	A	10715 to 10825 MHz	11205 to 11315 MHz	Lower Band
	B	10835 to 10945 MHz	11325 to 11435 MHz	
	C	10955 to 11065 MHz	11445 to 11555 MHz	
	D	11075 to 11195 MHz	11565 to 11685 MHz	
	A	11205 to 11315 MHz	10715 to 10825 MHz	Higher Band
	B	11325 to 11435 MHz	10835 to 10945 MHz	
	C	11445 to 11555 MHz	10955 to 11065 MHz	
	D	11565 to 11685 MHz	11075 to 11195 MHz	

Note: When the channel separation of 28 MHz applies in the Sub-Band A, the channel frequency must be assigned within from (Start frequency + 6 MHz) to (Stop frequency – 6 MHz).

When the channel separation of 28 MHz applies in the Sub-Band B/C/D, the channel frequency must be assigned within from (Start frequency) to (Stop frequency – 6 MHz).

**Table A-24 11 GHz, Sub-band A/B/C/D versus Frequency
(TX-RX frequency spacing: 530 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009032()	A	10701 to 10815 MHz	11231 to 11345 MHz	Lower Band
	B	10815 to 10935 MHz	11345 to 11465 MHz	
	C	10935 to 11055 MHz	11465 to 11585 MHz	
	D	11055 to 11175 MHz	11585 to 11705 MHz	
	A	11231 to 11345 MHz	10701 to 10815 MHz	Higher Band
	B	11345 to 11465 MHz	10815 to 10935 MHz	
	C	11465 to 11585 MHz	10935 to 11055 MHz	
	D	11585 to 11705 MHz	11055 to 11175 MHz	

Note: When the channel separation of 28 MHz applies in the Sub-Band A/B/C/D, the channel frequency must be assigned within from (Start frequency+ 6 MHz) to (Stop frequency).

6. 13 GHz Band

Table A-25 13 GHz, Sub-band A/B/C/D versus Frequency
(TX-RX frequency spacing: 266 MHz): STANDARD

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009034()	A	12751 to 12807 MHz	13017 to 13073 MHz	Lower Band
	B	12807 to 12863 MHz	13073 to 13129 MHz	
	C	12863 to 12919 MHz	13129 to 13185 MHz	
	D	12919 to 12975 MHz	13185 to 13241 MHz	
	A	13017 to 13073 MHz	12751 to 12807 MHz	Higher Band
	B	13073 to 13129 MHz	12807 to 12863 MHz	
	C	13129 to 13185 MHz	12863 to 12919 MHz	
	D	13185 to 13241 MHz	12919 to 12975 MHz	

Table A-26 13 GHz, Sub-band F versus Frequency Range
(TX-RX frequency spacing: 266 MHz): FRENCH

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009034()	F	12779 to 12835 MHz	12751 to 12807 MHz	Lower Band
	F	12751 to 12807 MHz	12779 to 12835 MHz	Higher Band

7. 15 GHz Band

**Table A-27 15 GHz, Sub-band A/B/C/D versus Frequency Range
(TX-RX frequency spacing: 315 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009036()	A	14630.50 to 14702.25 MHz	14945.50 to 15017.25 MHz	Lower Band
	B	14700.50 to 14772.25 MHz	15015.50 to 15087.25 MHz	
	C	14770.50 to 14842.25 MHz	15085.50 to 15157.25 MHz	
	D	14840.50 to 14912.25 MHz	15155.50 to 15227.25 MHz	
	A	14945.50 to 15017.25 MHz	14630.50 to 14702.25 MHz	Higher Band
	B	15015.50 to 15087.25 MHz	14700.50 to 14772.25 MHz	
	C	15085.50 to 15157.25 MHz	14770.50 to 14842.25 MHz	
	D	15155.50 to 15227.25 MHz	14840.50 to 14912.25 MHz	

**Table A-28 15 GHz, Sub-band E/F/G/H versus Frequency Range
(TX-RX frequency spacing: 420 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009036()	E	14501 to 14620 MHz	14921 to 15040 MHz	Lower Band
	F	14613 to 14732 MHz	15033 to 15152 MHz	
	G	14725 to 14844 MHz	15145 to 15264 MHz	
	H	14837 to 14956 MHz	15257 to 15376 MHz	
	E	14921 to 15040 MHz	14501 to 14620 MHz	Higher Band
	F	15033 to 15152 MHz	14613 to 14732 MHz	
	G	15145 to 15264 MHz	14725 to 14844 MHz	
	H	15257 to 15376 MHz	14837 to 14956 MHz	

**Table A-29 15 GHz, Sub-band A/B/C/D versus Frequency Range
(TX-RX frequency spacing: 490 MHz): STANDARD/UKRAINE**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA- 009036()	A	14394.25 to 14522.00 MHz	14884.25 to 15012.00 MHz	Lower Band
	B	14514.00 to 14634.00 MHz	15004.00 to 15124.00 MHz	
	C	14626.00 to 14746.00 MHz	15116.00 to 15236.00 MHz	
	D	14738.00 to 14858.00 MHz	15228.00 to 15348.00 MHz	
	A	14884.25 to 15012.00 MHz	14394.25 to 14522.00 MHz	Higher Band
	B	15004.00 to 15124.00 MHz	14514.00 to 14634.00 MHz	
	C	15116.00 to 15236.00 MHz	14626.00 to 14746.00 MHz	
	D	15228.00 to 15348.00 MHz	14738.00 to 14858.00 MHz	

**Table A-30 15 GHz, Sub-band A versus Frequency Range
(TX-RX frequency spacing: 728 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA- 009036()	A	14501 to 14620 MHz	15229 to 15348 MHz	Lower Band
	A	15229 to 15348 MHz	14501 to 14620 MHz	Higher Band

8. 18 GHz Band

**Table A-31 18 GHz, Sub-band A/B/C versus Frequency Range
(TX-RX frequency spacing: 1008 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009038()	A	17717.00 to 18037.25 MHz	18725.00 to 19045.25 MHz	Lower Band
	B	18035.50 to 18364.50 MHz	19043.50 to 19372.50 MHz	
	C	18361.00 to 18674.25 MHz	19369.00 to 19682.25 MHz	
	A	18725.00 to 19045.25 MHz	17717.00 to 18037.25 MHz	Higher Band
	B	19043.50 to 19372.50 MHz	18035.50 to 18364.50 MHz	
	C	19369.00 to 19682.25 MHz	18361.00 to 18674.25 MHz	

**Table A-32 18 GHz, Sub-band D/E/F versus Frequency Range
(TX-RX frequency spacing: 1010 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009038()	D	17706.25 to 18057.50 MHz	18716.25 to 19067.50 MHz	Lower Band
	E	18035.00 to 18387.50 MHz	19045.00 to 19397.50 MHz	
	F	18358.75 to 18688.75 MHz	19368.75 to 19698.75 MHz	
	D	18716.25 to 19067.50 MHz	17706.25 to 18057.50 MHz	Higher Band
	E	19045.00 to 19397.50 MHz	18035.00 to 18387.50 MHz	
	F	19368.75 to 19698.75 MHz	18358.75 to 18688.75 MHz	

**Table A-33 18 GHz, Sub-band A versus Frequency Range
(TX-RX frequency spacing: 1560 MHz): USA/BRAZIL**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009038()	A	17700 to 18140 MHz	19260 to 19700 MHz	Lower Band
	A	19260 to 19700 MHz	17700 to 18140 MHz	Higher Band

9. 23 GHz Band

**Table A-34 23 GHz, Sub-band A versus Frequency Range
(TX-RX frequency spacing: 1008 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009040()	A	22002.750 to 22591.625 MHz	23010.750 to 23599.625 MHz	Lower Band
	A	23010.750 to 23599.625 MHz	22002.750 to 22591.625 MHz	Higher Band

**Table A-35 23 GHz, Sub-band A/B/C versus Frequency Range
(TX-RX frequency spacing: 1200 MHz): USA**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009040()	A	21200.00 to 21801.25 MHz	22400.00 to 23001.25 MHz	Lower Band
	B	21498.75 to 22100.00 MHz	22698.75 to 23300.00 MHz	
	C	21798.75 to 22400.00 MHz	22998.75 to 23600.00 MHz	
	A	22400.00 to 23001.25 MHz	21200.00 to 21801.25 MHz	Higher Band
	B	22698.75 to 23300.00 MHz	21498.75 to 22100.00 MHz	
	C	22998.75 to 23600.00 MHz	21798.75 to 22400.00 MHz	

Sub-Band A and C cover full band.

**Table A-36 23 GHz, Sub-band A/B/C versus Frequency Range
(TX-RX frequency spacing: 1232 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009040()	A	21224.000 to 21784.875 MHz	22456.000 to 23016.875 MHz	Lower Band
	B	21518.000 to 22078.000 MHz	22750.000 to 23310.000 MHz	
	C	21784.000 to 22346.625 MHz	23016.000 to 23578.625 MHz	
	A	22456.000 to 23016.875 MHz	21224.000 to 21784.875 MHz	Higher Band
	B	22750.000 to 23310.000 MHz	21518.000 to 22078.000 MHz	
	C	23016.000 to 23578.625 MHz	21784.000 to 22346.625 MHz	

Sub-Band A and C cover full band.

10. 26 GHz Band

**Table A-37 26 GHz, Sub-band A/B/C versus Frequency Range
(TX-RX frequency spacing: 1008 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009042()	A	24549.00 to 24997.00 MHz	25557.00 to 26005.00 MHz	Lower Band
	B	24773.00 to 25221.00 MHz	25781.00 to 26229.00 MHz	
	C	24997.00 to 25445.00 MHz	26005.00 to 26453.00 MHz	
	A	25557.00 to 26005.00 MHz	24549.00 to 24997.00 MHz	Higher Band
	B	25781.00 to 26229.00 MHz	24773.00 to 25221.00 MHz	
	C	26005.00 to 26453.00 MHz	24997.00 to 25445.00 MHz	

Sub-Band A and C cover full band.

11. 32 GHz Band

**Table A-38 32 GHz, Sub-band A/B versus Frequency Range
(TX-RX frequency spacing: 812 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA-009046()	A	31815.00 to 32207.00 MHz	32627.00 to 33019.00 MHz	Lower Band
	B	32193.00 to 32571.00 MHz	33005.00 to 33383.00 MHz	
	A	32627.00 to 33019.00 MHz	31815.00 to 32207.00 MHz	Higher Band
	B	33005.00 to 33383.00 MHz	32193.00 to 32571.00 MHz	

12. 38 GHz Band

**Table A-39 38 GHz, Sub-band A/B/C versus Frequency Range
(TX-RX frequency spacing: 1260 MHz): STANDARD**

ODU Type	Sub-Band	TX Radio Point Frequency Range	RX Radio Point Frequency Range	TX HIGH/LOW
NWA- 009048()	A	37016.00 to 37620.00 MHz	38276.00 to 38880.00 MHz	Lower Band
	B	37316.00 to 37920.00 MHz	38576.00 to 39180.00 MHz	
	C	37616.00 to 38220.00 MHz	38876.00 to 39480.00 MHz	
	A	38276.00 to 38880.00 MHz	37016.00 to 37620.00 MHz	Higher Band
	B	38576.00 to 39180.00 MHz	37316.00 to 37920.00 MHz	
	C	38876.00 to 39480.00 MHz	37616.00 to 38220.00 MHz	

Sub-Band A and C cover full band.