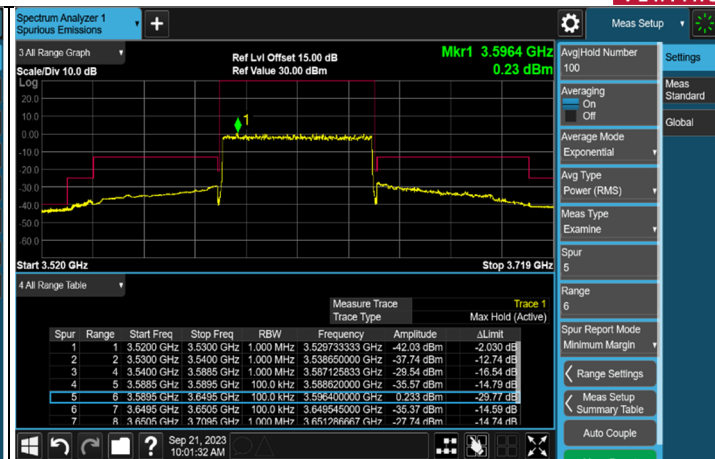
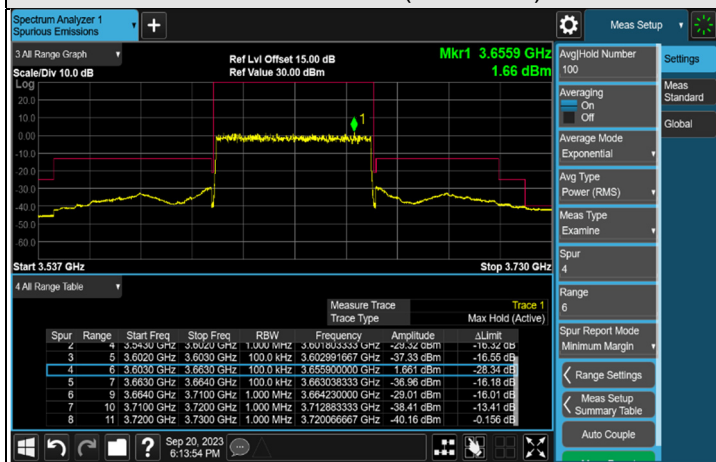


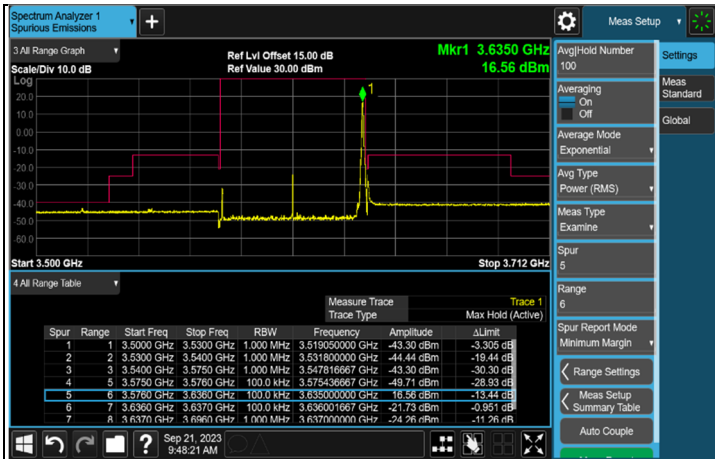
FULL CH 640400 (3606 MHz)



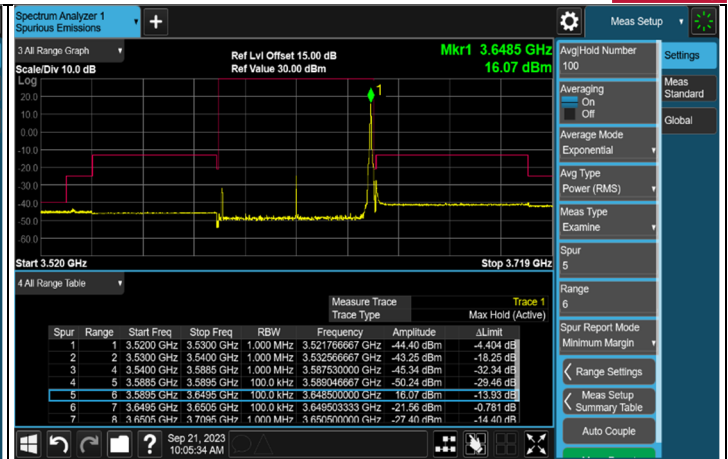
FULL CH 641300 (3619.5 MHz)



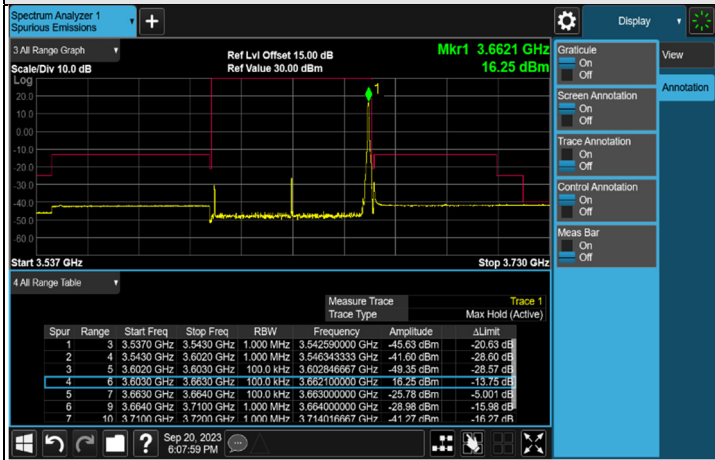
FULL CH 642200 (3633 MHz)



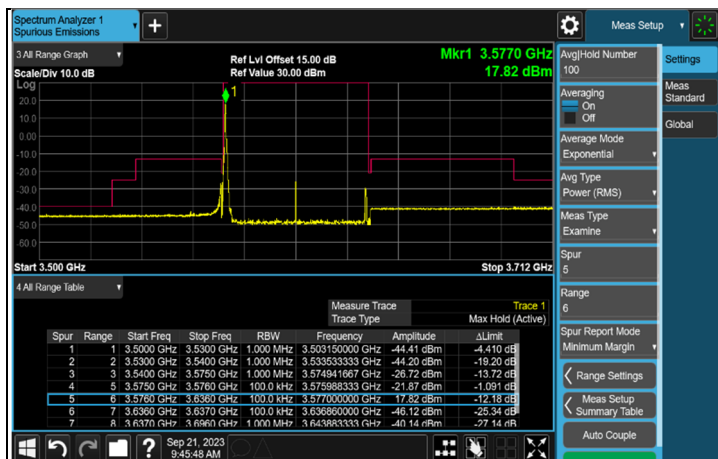
1RB#MAX CH 640400 (3606 MHz)



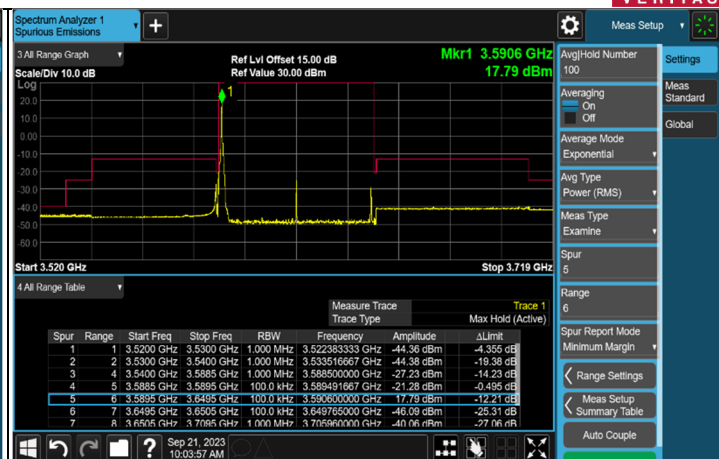
1RB#MAX CH 641300 (3619.5 MHz)



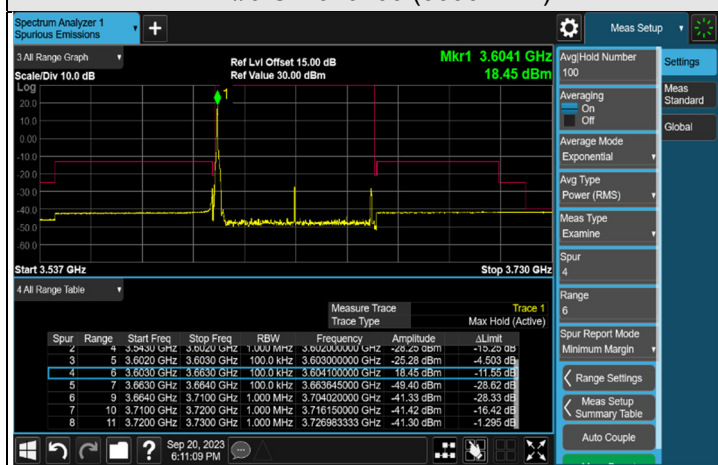
1RB#MAX CH 642200 (3633 MHz)



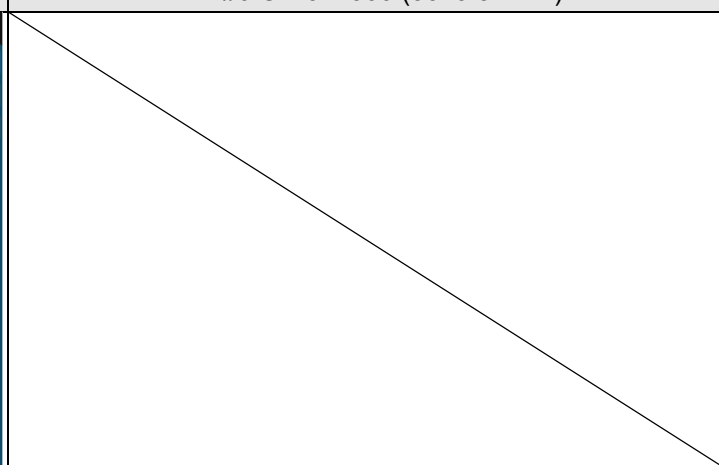
1RB#0 CH 640400 (3606 MHz)



1RB#0 CH 641300 (3619.5 MHz)



1RB#0 CH 642200 (3633 MHz)



7.6 Radiated Spurious Emissions below 1GHz

7.6.1 NR n77 SCS 30 kHz

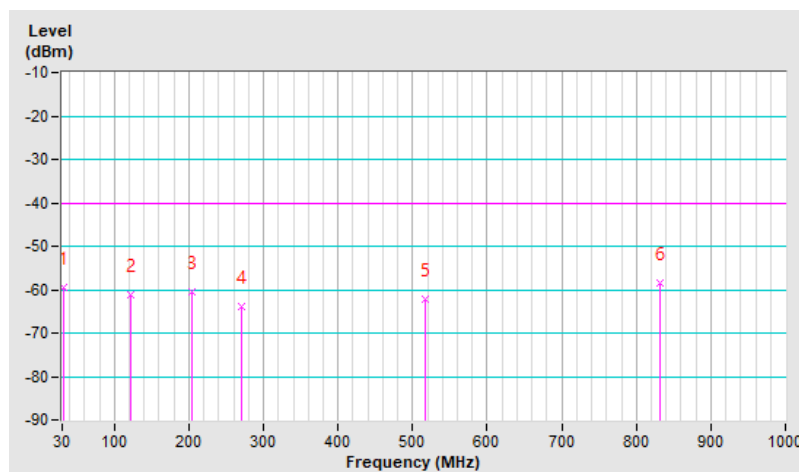
RF Mode	NR n77 Channel Bandwidth: 50MHz	Channel	CH 641670 : 3625.05 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	32.91	-59.48	-40.00	-19.48	1.49 H	180	50.22	-109.70
2	121.18	-61.14	-40.00	-21.14	1.49 H	292	49.30	-110.44
3	203.63	-60.65	-40.00	-20.65	1.49 H	334	51.50	-112.15
4	269.59	-63.77	-40.00	-23.77	1.49 H	346	45.23	-109.00
5	517.91	-62.18	-40.00	-22.18	1.49 H	188	40.60	-102.78
6	832.19	-58.53	-40.00	-18.53	1.00 H	131	38.77	-97.30

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

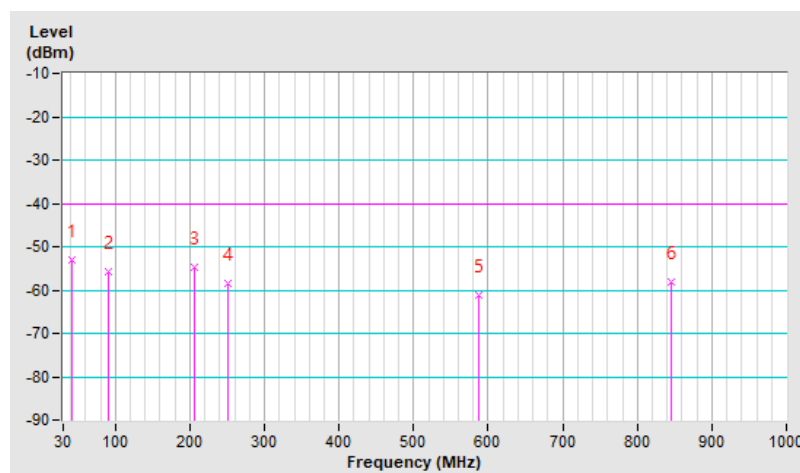


RF Mode	NR n77 Channel Bandwidth: 50MHz	Channel	CH 641670 : 3625.05 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	41.64	-53.15	-40.00	-13.15	1.01 V	119	55.53	-108.68
2	91.11	-55.85	-40.00	-15.85	1.01 V	120	58.37	-114.22
3	206.54	-54.81	-40.00	-14.81	1.01 V	156	57.35	-112.16
4	250.19	-58.58	-40.00	-18.58	1.01 V	180	51.25	-109.83
5	587.75	-61.30	-40.00	-21.30	1.50 V	262	39.87	-101.17
6	844.80	-58.19	-40.00	-18.19	1.01 V	220	39.00	-97.19

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



7.6.2 NR n78 SCS 30 kHz

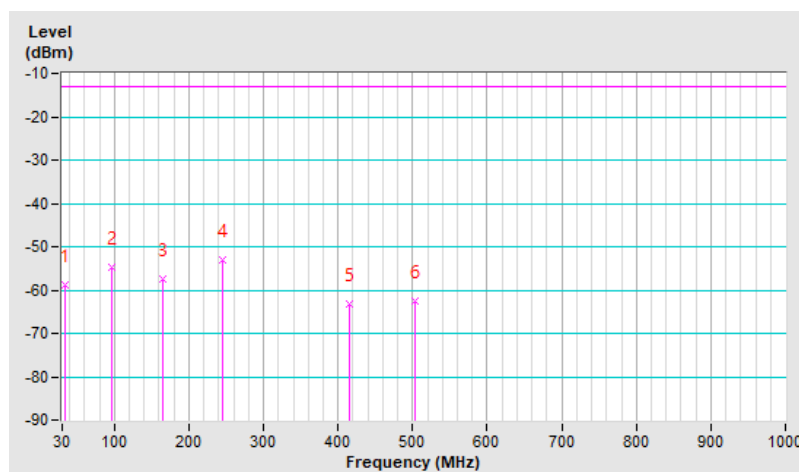
RF Mode	NR n78 Channel Bandwidth: 20MHz	Channel	CH 639068 : 3586.02 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	33.88	-58.89	-13.00	-45.89	1.49 H	173	50.52	-109.41
2	96.93	-54.79	-13.00	-41.79	1.49 H	271	58.85	-113.64
3	164.83	-57.53	-13.00	-44.53	1.49 H	329	51.02	-108.55
4	245.34	-53.19	-13.00	-40.19	1.00 H	355	56.72	-109.91
5	416.06	-63.11	-13.00	-50.11	1.00 H	161	42.08	-105.19
6	503.36	-62.50	-13.00	-49.50	1.49 H	229	40.62	-103.12

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

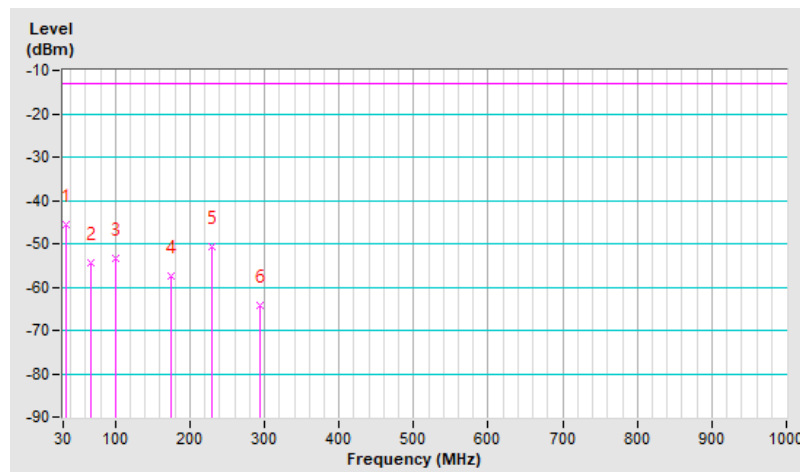


RF Mode	NR n78 Channel Bandwidth: 20MHz	Channel	CH 639068 : 3586.02 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	33.88	-45.44	-13.00	-32.44	1.01 V	264	63.97	-109.41
2	66.86	-54.30	-13.00	-41.30	1.01 V	182	56.00	-110.30
3	100.81	-53.46	-13.00	-40.46	1.01 V	176	59.25	-112.71
4	174.53	-57.50	-13.00	-44.50	1.01 V	128	51.69	-109.19
5	228.85	-50.61	-13.00	-37.61	1.01 V	248	60.59	-111.20
6	294.81	-64.36	-13.00	-51.36	1.01 V	231	43.70	-108.06

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



7.7 Radiated Spurious Emissions above 1GHz

7.7.1 NR n77 SCS 30 kHz

RF Mode	NR n77 Channel Bandwidth: 20MHz	Channel	CH 639000 : 3585 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7170.00	-40.82	-40.00	-0.82	3.24 H	215	46.67	-87.49

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7170.00	-42.57	-40.00	-2.57	1.70 V	186	44.92	-87.49

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n77 Channel Bandwidth: 20MHz	Channel	CH 641670 : 3625.05 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7250.10	-40.98	-40.00	-0.98	3.28 H	213	46.48	-87.46
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7250.10	-42.59	-40.00	-2.59	1.78 V	186	44.87	-87.46

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.



RF Mode	NR n77 Channel Bandwidth: 20MHz	Channel	CH 644342 : 3665.13 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7330.26	-40.99	-40.00	-0.99	3.25 H	214	46.43	-87.42
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7330.26	-42.49	-40.00	-2.49	1.71 V	187	44.93	-87.42

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.



RF Mode	NR n77 Channel Bandwidth: 40MHz	Channel	CH 639668 : 3595.02 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7190.04	-40.83	-40.00	-0.83	3.20 H	215	46.73	-87.56
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7190.04	-42.53	-40.00	-2.53	1.76 V	191	45.03	-87.56

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.



RF Mode	NR n77 Channel Bandwidth: 40MHz	Channel	CH 641670 : 3625.05 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7250.10	-40.81	-40.00	-0.81	3.28 H	214	46.65	-87.46
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7250.10	-42.23	-40.00	-2.23	1.68 V	187	45.23	-87.46

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.



RF Mode	NR n77 Channel Bandwidth: 40MHz	Channel	CH 643674 : 3655.11 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7310.22	-40.87	-40.00	-0.87	3.19 H	211	46.58	-87.45
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7310.22	-42.11	-40.00	-2.11	1.74 V	189	45.34	-87.45

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.



RF Mode	NR n77 Channel Bandwidth: 50MHz	Channel	CH 640000 : 3600 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7200.00	-41.20	-40.00	-1.20	3.21 H	216	46.39	-87.59
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7200.00	-42.38	-40.00	-2.38	1.74 V	187	45.21	-87.59

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n77 Channel Bandwidth: 50MHz	Channel	CH 641670 : 3625.05 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7250.10	-40.78	-40.00	-0.78	3.24 H	212	46.68	-87.46
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7250.10	-42.51	-40.00	-2.51	1.75 V	193	44.95	-87.46

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.



RF Mode	NR n77 Channel Bandwidth: 50MHz	Channel	CH 643342 : 3650.13 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7300.26	-41.04	-40.00	-1.04	3.25 H	213	46.43	-87.47
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7300.26	-42.26	-40.00	-2.26	1.68 V	185	45.21	-87.47

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.

7.7.2 NR n78 SCS 30 kHz

RF Mode	NR n78 Channel Bandwidth: 20MHz	Channel	CH 639068 : 3586.02 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7172.04	-40.69	-40.00	-0.69	3.35 H	210	46.82	-87.51

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7172.04	-42.25	-40.00	-2.25	1.82 V	195	45.26	-87.51

Remarks:

- EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
- Margin value = EIRP – Limit value
- The other EIRP levels were very low against the limit.



RF Mode	NR n78 Channel Bandwidth: 20MHz	Channel	CH 641300 : 3619.5 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7239.00	-40.98	-40.00	-0.98	3.33 H	211	46.51	-87.49
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7239.00	-42.33	-40.00	-2.33	1.75 V	197	45.16	-87.49

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.



RF Mode	NR n78 Channel Bandwidth: 20MHz	Channel	CH 643532 : 3652.98 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7305.96	-41.04	-40.00	-1.04	3.34 H	214	46.42	-87.46
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7305.96	-42.15	-40.00	-2.15	1.77 V	196	45.31	-87.46

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.



RF Mode	NR n78 Channel Bandwidth: 40MHz	Channel	CH 639734 : 3596.01 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7192.02	-40.81	-40.00	-0.81	3.33 H	208	46.75	-87.56
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7192.02	-42.29	-40.00	-2.29	1.73 V	198	45.27	-87.56

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.



RF Mode	NR n78 Channel Bandwidth: 40MHz	Channel	CH 641300 : 3619.5 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7239.00	-40.95	-40.00	-0.95	3.29 H	212	46.54	-87.49
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7239.00	-42.58	-40.00	-2.58	1.72 V	197	44.91	-87.49

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.

RF Mode	NR n78 Channel Bandwidth: 40MHz	Channel	CH 642866 : 3642.99 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7285.98	-40.75	-40.00	-0.75	3.31 H	215	46.71	-87.46
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7285.98	-42.34	-40.00	-2.34	1.77 V	199	45.12	-87.46

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n78 Channel Bandwidth: 60MHz	Channel	CH 640400 : 3606 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7212.00	-40.98	-40.00	-0.98	3.37 H	206	46.57	-87.55
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7212.00	-42.23	-40.00	-2.23	1.71 V	193	45.32	-87.55

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.



RF Mode	NR n78 Channel Bandwidth: 60MHz	Channel	CH 641300 : 3619.5 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7239.00	-40.92	-40.00	-0.92	3.34 H	203	46.57	-87.49
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7239.00	-42.45	-40.00	-2.45	1.81 V	194	45.04	-87.49

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.



RF Mode	NR n78 Channel Bandwidth: 60MHz	Channel	CH 642200 : 3633 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7266.00	-40.92	-40.00	-0.92	3.29 H	215	46.54	-87.46
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7266.00	-42.50	-40.00	-2.50	1.83 V	201	44.96	-87.46

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.

7.8 Frequency Stability

Environmental Conditions:	25°C, 60% RH	Tested By:	Ted Chang
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7.8.1 NR n77 SCS 30 kHz

NR n77 SCS 30 kHz, Channel Bandwidth: 20 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 639000 (3585.00 MHz)		CH 644342 (3665.13 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.2725	3584.999998	-0.0006	3665.129996	-0.0011
3.85	3585.000002	0.0006	3665.129997	-0.0008
4.4275	3585.000003	0.0008	3665.129996	-0.0011

Note: The applicant defined the normal working voltage is from 3.2725 to 4.4275 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 639000 (3585.00 MHz)		CH 644342 (3665.13 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3584.999997	-0.0008	3665.129997	-0.0008
-20	3584.999998	-0.0006	3665.129996	-0.0011
-10	3585.000004	0.0011	3665.130004	0.0011
0	3585.000004	0.0011	3665.129999	-0.0003
10	3584.999997	-0.0008	3665.129996	-0.0011
20	3584.999998	-0.0006	3665.130001	0.0003
30	3585.000004	0.0011	3665.129999	-0.0003
40	3585.000002	0.0006	3665.129999	-0.0003
50	3584.999998	-0.0006	3665.130004	0.0011
55	3585.000002	0.0006	3665.129999	-0.0003

NR n77 SCS 30 kHz, Channel Bandwidth: 40 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 639668 (3595.02 MHz)		CH 643674 (3655.11 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.2725	3595.019997	-0.0008	3655.109999	-0.0003
3.85	3595.020001	0.0003	3655.110003	0.0008
4.4275	3595.020003	0.0008	3655.110002	0.0005

Note: The applicant defined the normal working voltage is from 3.2725 to 4.4275 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 639668 (3595.02 MHz)		CH 643674 (3655.11 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3595.020003	0.0008	3655.110002	0.0005
-20	3595.019996	-0.0011	3655.110003	0.0008
-10	3595.019996	-0.0011	3655.110002	0.0005
0	3595.019999	-0.0003	3655.109996	-0.0011
10	3595.020004	0.0011	3655.109997	-0.0008
20	3595.019998	-0.0006	3655.109997	-0.0008
30	3595.019999	-0.0003	3655.110001	0.0003
40	3595.019999	-0.0003	3655.110003	0.0008
50	3595.020002	0.0006	3655.109999	-0.0003
55	3595.020004	0.0011	3655.109998	-0.0005

NR n77 SCS 30 kHz, Channel Bandwidth: 50 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 640000 (3600.00 MHz)		CH 644342 (3665.13 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.2725	3599.999997	-0.0008	3650.130004	0.0011
3.85	3600.000003	0.0008	3650.130004	0.0011
4.4275	3599.999997	-0.0008	3650.129996	-0.0011

Note: The applicant defined the normal working voltage is from 3.2725 to 4.4275 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 640000 (3600.00 MHz)		CH 644342 (3665.13 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3599.999996	-0.0011	3650.130003	0.0008
-20	3599.999996	-0.0011	3650.130004	0.0011
-10	3599.999999	-0.0003	3650.129999	-0.0003
0	3600.000004	0.0011	3650.129997	-0.0008
10	3599.999999	-0.0003	3650.129998	-0.0005
20	3599.999996	-0.0011	3650.129996	-0.0011
30	3599.999998	-0.0006	3650.130003	0.0008
40	3599.999998	-0.0006	3650.130002	0.0005
50	3599.999999	-0.0003	3650.129998	-0.0005
55	3599.999999	-0.0003	3650.130002	0.0005

7.8.2 NR n78 SCS 30 kHz

NR n78 SCS 30 kHz, Channel Bandwidth: 20 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 639068 (3586.02 MHz)		CH 643532 (3652.98 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.2725	3586.019998	-0.0006	3652.979997	-0.0008
3.85	3586.019999	-0.0003	3652.979996	-0.0011
4.4275	3586.019999	-0.0003	3652.980001	0.0003

Note: The applicant defined the normal working voltage is from 3.2725 to 4.4275 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 639068 (3586.02 MHz)		CH 643532 (3652.98 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3586.019999	-0.0003	3652.980003	0.0008
-20	3586.019998	-0.0006	3652.979999	-0.0003
-10	3586.020004	0.0011	3652.980003	0.0008
0	3586.019996	-0.0011	3652.979999	-0.0003
10	3586.019999	-0.0003	3652.980001	0.0003
20	3586.019996	-0.0011	3652.979996	-0.0011
30	3586.020002	0.0006	3652.979998	-0.0005
40	3586.020003	0.0008	3652.980004	0.0011
50	3586.019997	-0.0008	3652.980003	0.0008
55	3586.020002	0.0006	3652.979996	-0.0011

NR n78 SCS 30 kHz, Channel Bandwidth: 30 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 639400 (3591.00 MHz)		CH 643200 (3648.00 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.2725	3590.999997	-0.0008	3648.000002	0.0005
3.85	3591.000001	0.0003	3647.999996	-0.0011
4.4275	3591.000001	0.0003	3648.000003	0.0008

Note: The applicant defined the normal working voltage is from 3.2725 to 4.4275 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 639400 (3591.00 MHz)		CH 643200 (3648.00 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3591.000002	0.0006	3648.000001	0.0003
-20	3590.999999	-0.0003	3647.999996	-0.0011
-10	3590.999999	-0.0003	3648.000003	0.0008
0	3590.999998	-0.0006	3648.000004	0.0011
10	3590.999998	-0.0006	3648.000001	0.0003
20	3591.000001	0.0003	3647.999998	-0.0005
30	3590.999996	-0.0011	3648.000004	0.0011
40	3591.000001	0.0003	3648.000004	0.0011
50	3590.999997	-0.0008	3647.999999	-0.0003
55	3590.999996	-0.0011	3648.000003	0.0008

NR n78 SCS 30 kHz, Channel Bandwidth: 40 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 639734 (3596.01 MHz)		CH 642866 (3642.99 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.2725	3596.010002	0.0006	3642.989997	-0.0008
3.85	3596.009999	-0.0003	3642.990004	0.0011
4.4275	3596.009996	-0.0011	3642.989999	-0.0003

Note: The applicant defined the normal working voltage is from 3.2725 to 4.4275 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 639734 (3596.01 MHz)		CH 642866 (3642.99 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3596.009997	-0.0008	3642.990003	0.0008
-20	3596.009998	-0.0006	3642.989996	-0.0011
-10	3596.010001	0.0003	3642.990003	0.0008
0	3596.010001	0.0003	3642.990004	0.0011
10	3596.009997	-0.0008	3642.989996	-0.0011
20	3596.010004	0.0011	3642.989998	-0.0005
30	3596.009999	-0.0003	3642.989996	-0.0011
40	3596.010004	0.0011	3642.989996	-0.0011
50	3596.009997	-0.0008	3642.989997	-0.0008
55	3596.010003	0.0008	3642.989997	-0.0008

NR n78 SCS 30 kHz, Channel Bandwidth: 50 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 640068 (3601.02 MHz)		CH 642532 (3637.98 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.2725	3601.019999	-0.0003	3637.980003	0.0008
3.85	3601.020002	0.0006	3637.979998	-0.0005
4.4275	3601.019996	-0.0011	3637.980004	0.0011

Note: The applicant defined the normal working voltage is from 3.2725 to 4.4275 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 640068 (3601.02 MHz)		CH 642532 (3637.98 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3601.019998	-0.0006	3637.979998	-0.0005
-20	3601.019997	-0.0008	3637.979998	-0.0005
-10	3601.019998	-0.0006	3637.980003	0.0008
0	3601.020003	0.0008	3637.979996	-0.0011
10	3601.019996	-0.0011	3637.979998	-0.0005
20	3601.020003	0.0008	3637.980004	0.0011
30	3601.019998	-0.0006	3637.979999	-0.0003
40	3601.020001	0.0003	3637.980003	0.0008
50	3601.020002	0.0006	3637.980004	0.0011
55	3601.020002	0.0006	3637.979997	-0.0008

NR n77 SCS 30 kHz, Channel Bandwidth: 60 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 640400 (3606.00 MHz)		CH 642200 (3633.00 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.2725	3606.000004	0.0011	3633.000004	0.0011
3.85	3606.000001	0.0003	3632.999998	-0.0005
4.4275	3606.000004	0.0011	3632.999998	-0.0005

Note: The applicant defined the normal working voltage is from 3.2725 to 4.4275 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 640400 (3606.00 MHz)		CH 642200 (3633.00 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3606.000002	0.0006	3632.999997	-0.0008
-20	3605.999998	-0.0006	3633.000001	0.0003
-10	3606.000002	0.0006	3633.000001	0.0003
0	3605.999999	-0.0003	3632.999997	-0.0008
10	3605.999996	-0.0011	3633.000003	0.0008
20	3605.999996	-0.0011	3633.000004	0.0011
30	3605.999999	-0.0003	3633.000001	0.0003
40	3605.999996	-0.0011	3632.999997	-0.0008
50	3605.999997	-0.0008	3633.000003	0.0008
55	3606.000001	0.0003	3633.000004	0.0011

8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)



9 Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

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The address and road map of all our labs can be found in our web site also.

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