





























Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 5 MHz

| Channel Bandwidth: 5 MHz | | | | | | |
|--------------------------|---------|---------------|------------------|-----------------|-------------|---------|
| Voltage | | | | | | |
| Modulation | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK | LCH | 10.5 | 25 | -0.000020 | ± 2.5 | PASS |
| | | 24 | 25 | 0.000404 | ± 2.5 | PASS |
| | | 32 | 25 | 0.000710 | ± 2.5 | PASS |
| | MCH | 10.5 | 25 | 0.001007 | ± 2.5 | PASS |
| | | 24 | 25 | 0.001551 | ± 2.5 | PASS |
| | | 32 | 25 | 0.000773 | ± 2.5 | PASS |
| | HCH | 10.5 | 25 | 0.000501 | ± 2.5 | PASS |
| | | 24 | 25 | 0.000523 | ± 2.5 | PASS |
| | | 32 | 25 | 0.000259 | ± 2.5 | PASS |
| 16QAM | LCH | 10.5 | 25 | -0.001316 | ± 2.5 | PASS |
| | | 24 | 25 | 0.000161 | ± 2.5 | PASS |
| | | 32 | 25 | 0.001183 | ± 2.5 | PASS |
| | MCH | 10.5 | 25 | 0.000584 | ± 2.5 | PASS |
| | | 24 | 25 | -0.000302 | ± 2.5 | PASS |
| | | 32 | 25 | 0.001033 | ± 2.5 | PASS |
| | HCH | 10.5 | 25 | 0.001283 | ± 2.5 | PASS |
| | | 24 | 25 | -0.000020 | ± 2.5 | PASS |
| | | 32 | 25 | -0.000267 | ± 2.5 | PASS |
| Temperature | | | | | | |
| Modulation | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK | LCH | 24 | -30 | -0.000911 | ± 2.5 | PASS |
| | | 24 | -20 | -0.000628 | ± 2.5 | PASS |
| | | 24 | -10 | -0.001620 | ± 2.5 | PASS |
| | | 24 | 0 | -0.000628 | ± 2.5 | PASS |
| | | 24 | 10 | 0.001412 | ± 2.5 | PASS |
| | | 24 | 20 | 0.000948 | ± 2.5 | PASS |
| | | 24 | 30 | 0.000747 | ± 2.5 | PASS |
| | | 24 | 40 | 0.000040 | ± 2.5 | PASS |
| | | 24 | 50 | 0.000668 | ± 2.5 | PASS |
| | MCH | 24 | -30 | 0.000383 | ± 2.5 | PASS |
| | | 24 | -20 | 0.000181 | ± 2.5 | PASS |
| | | 24 | -10 | 0.001733 | ± 2.5 | PASS |
| | | 24 | 0 | 0.000604 | ± 2.5 | PASS |
| | | 24 | 10 | 0.000484 | ± 2.5 | PASS |
| | | 24 | 20 | 0.002116 | ± 2.5 | PASS |
| 24 | 30 | 0.000322 | ± 2.5 | PASS | | |

| | | | | | | |
|-------|-----|----|-----|-----------|-------|------|
| | HCH | 24 | 40 | 0.000242 | ± 2.5 | PASS |
| | | 24 | 50 | 0.001431 | ± 2.5 | PASS |
| | | 24 | -30 | 0.001183 | ± 2.5 | PASS |
| | | 24 | -20 | 0.001043 | ± 2.5 | PASS |
| | | 24 | -10 | 0.000401 | ± 2.5 | PASS |
| | | 24 | 0 | 0.001243 | ± 2.5 | PASS |
| | | 24 | 10 | 0.000402 | ± 2.5 | PASS |
| | | 24 | 20 | -0.000966 | ± 2.5 | PASS |
| | | 24 | 30 | -0.000483 | ± 2.5 | PASS |
| | | 24 | 40 | -0.000302 | ± 2.5 | PASS |
| | | 24 | 50 | -0.000080 | ± 2.5 | PASS |
| 16QAM | LCH | 24 | -30 | 0.000000 | ± 2.5 | PASS |
| | | 24 | -20 | -0.000992 | ± 2.5 | PASS |
| | | 24 | -10 | -0.001154 | ± 2.5 | PASS |
| | | 24 | 0 | -0.000628 | ± 2.5 | PASS |
| | | 24 | 10 | 0.000484 | ± 2.5 | PASS |
| | | 24 | 20 | 0.000625 | ± 2.5 | PASS |
| | | 24 | 30 | 0.001634 | ± 2.5 | PASS |
| | | 24 | 40 | -0.000040 | ± 2.5 | PASS |
| | | 24 | 50 | -0.000486 | ± 2.5 | PASS |
| | MCH | 24 | -30 | 0.000665 | ± 2.5 | PASS |
| | | 24 | -20 | 0.000866 | ± 2.5 | PASS |
| | | 24 | -10 | 0.002136 | ± 2.5 | PASS |
| | | 24 | 0 | 0.002196 | ± 2.5 | PASS |
| | | 24 | 10 | 0.000846 | ± 2.5 | PASS |
| | | 24 | 20 | -0.000060 | ± 2.5 | PASS |
| | | 24 | 30 | 0.000000 | ± 2.5 | PASS |
| | | 24 | 40 | 0.000121 | ± 2.5 | PASS |
| | | 24 | 50 | 0.000515 | ± 2.5 | PASS |
| | HCH | 24 | -30 | 0.001183 | ± 2.5 | PASS |
| | | 24 | -20 | -0.000100 | ± 2.5 | PASS |
| | | 24 | -10 | 0.000321 | ± 2.5 | PASS |
| | | 24 | 0 | 0.001103 | ± 2.5 | PASS |
| | | 24 | 10 | -0.000463 | ± 2.5 | PASS |
| | | 24 | 20 | -0.000966 | ± 2.5 | PASS |
| | | 24 | 30 | -0.000845 | ± 2.5 | PASS |
| | | 24 | 40 | 0.000101 | ± 2.5 | PASS |
| | | 24 | 50 | 0.000240 | ± 2.5 | PASS |

Note: All bandwidth and modulation are tested, only the worst result is reported.

Appendix G :Field Strength of Spurious Radiation Measurement Test Result

| Bandwidth: | 5M | | Test channel: | Lowest |
|--------------------|--|-------------|---------------------------|----------------|
| Modulation: | QPSK | | Temperature : | 23~24°C |
| RB #: | 1RB #0 | | Relative Humidity: | 46~48% |
| Note: | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. | | | |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 1413.0 | Vertical | -32.17 | -13.00 | PASS |
| 2119.5 | V | -44.35 | | |
| - | V | - | | |
| 1413.0 | Horizontal | -31.40 | | |
| 2119.5 | H | -43.87 | | |
| - | H | - | | |
| Bandwidth: | 5M | | Test channel: | Middle |
| Modulation: | QPSK | | Temperature : | 23~24°C |
| RB #: | 1RB #0 | | Relative Humidity: | 46~48% |
| Note: | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. | | | |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 1420.0 | Vertical | -30.50 | -13.00 | PASS |
| 2130.0 | V | -43.26 | | |
| - | V | - | | |
| 1420.0 | Horizontal | -31.54 | | |
| 2130.0 | H | -42.37 | | |
| - | H | - | | |
| Bandwidth: | 5M | | Test channel: | Highest |
| Modulation: | QPSK | | Temperature : | 23~24°C |
| RB #: | 1RB #0 | | Relative Humidity: | 46~48% |
| Note: | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. | | | |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 1427.0 | Vertical | -31.18 | -13.00 | PASS |
| 2140.5 | V | -42.95 | | |
| - | V | - | | |
| 1427.0 | Horizontal | -30.54 | | |
| 2140.5 | H | -43.25 | | |
| - | H | - | | |

| Bandwidth: | 5M | | Test channel: | Lowest |
|--------------------|--|-------------|---------------------------|----------------|
| Modulation: | 16QAM | | Temperature : | 23~24°C |
| RB #: | 1RB #0 | | Relative Humidity: | 46~48% |
| Note: | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. | | | |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 1413.0 | Vertical | -31.91 | -13.00 | PASS |
| 2119.5 | V | -45.37 | | |
| - | V | - | | |
| 1413.0 | Horizontal | -32.35 | | |
| 2119.5 | H | -46.10 | | |
| - | H | - | | |
| Bandwidth: | 5M | | Test channel: | Middle |
| Modulation: | 16QAM | | Temperature : | 23~24°C |
| RB #: | 1RB #0 | | Relative Humidity: | 46~48% |
| Note: | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. | | | |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 1420.0 | Vertical | -30.55 | -13.00 | PASS |
| 2130.0 | V | -42.72 | | |
| - | V | - | | |
| 1420.0 | Horizontal | -31.45 | | |
| 2130.0 | H | -43.61 | | |
| - | H | - | | |
| Bandwidth: | 5M | | Test channel: | Highest |
| Modulation: | 16QAM | | Temperature : | 23~24°C |
| RB #: | 1RB #0 | | Relative Humidity: | 46~48% |
| Note: | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. | | | |
| Frequency (MHz) | Spurious Emission | | Limit (dBm) | Result |
| | Polarization | Level (dBm) | | |
| 1427.0 | Vertical | -31.29 | -13.00 | PASS |
| 2140.5 | V | -46.60 | | |
| - | V | - | | |
| 1427.0 | Horizontal | -30.36 | | |
| 2140.5 | H | -42.78 | | |
| - | H | - | | |

Note: All bandwidth and modulation are tested, only the worst result is reported.