

Quick Fact Sheet Spectrum Master™ MS2720T

9 kHz to 9/13/20/32/43 GHz

Anritsu
Advancing beyond

Designed for Field Use

With the 7th Spectrum Master generation, Anritsu has not been standing still in the development of instruments designed to meet user needs, whether as a handy bench instrument or as a high performance field tool that can make measurements wherever they need to be made. User convenience features, such as a touch screen, serve to make the 7th generation Spectrum Master even easier to use. A brighter display with several user-selectable display choices including high contrast, monochrome, and night-vision red makes the Spectrum Master outstanding in the field. Burst detect is included to simplify finding pulsed interfering signals.

Spectrum and Interference Analyzer Highlights

- Intuitive, Easy to Use Touch Screen User Interface
- Tracking Generators to 9/13/20 GHz (model dependent)
- Measure: Occupied Bandwidth, Channel Power, ACPR, C/I, Spurious Emissions, Field Strength and More
- Dynamic Range: > 106 dB in 1 Hz RBW
- DANL: -160 dBm in 1 Hz RBW @ 1 GHz
- Phase Noise: -108 dBc/Hz typical @ 10 kHz offset at 1 GHz
- Sweep Modes: Fast, Performance, No FFT, Burst Detect
- Traces: Normal, Max Hold, Min Hold, Average, # of Averages
- Burst Detect: detects and displays bursty signals 200 μ s wide or wider
- Frequency Accuracy: GPS On: \pm 25 ppb, GPS Off: \pm 1 ppm/yr
- Interference Analyzer: Spectrogram, Signal Strength, RSSI, Mapping
- 1 Hz to 10 MHz Resolution Bandwidth (RBW) and Video Bandwidth (VBW)
- Options for 3G and 4G cellular measurements including LTE, TD-LTE, GSM, NB-IoT, CDMA, WiMAX, WCDMA, and TD-SCDMA
- Detectors: Peak, Negative, Sample, Quasi-peak, and true RMS
- Markers: 6, each with a Delta Marker, or 1 Reference with 6 Deltas
- Limit Lines: up to 40 segments with one-button envelope creation



Capabilities and Functional Highlights

- LTE, TD-LTE
- GSM/EDGE
- W-CDMA/HSPA+
- TD-SCDMA/HSPA+
- CDMA, EV-DO
- Fixed, Mobile WiMAX
- NB-IoT
- AM/FM/SSB Demodulator
- Zero-span IF Output
- EMF Measurements
- IQ Waveform Capture
- Standard Quasi-PK Detector
- Gated Sweep
- GPS tagging of stored traces
- Internal Pre-amplifier standard
- High Accuracy Power Limit Meter
- USB Power Sensors Up to 50 GHz
- Channel Scanner
- 8.4 inch High Resolution Display
- < 5 minute warm-up time
- 3 hour battery operation time
- Ethernet/USB Data Transfer

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Key Specifications

| Spectrum Analyzer | | | | | |
|-------------------------------|---|--|-----------------|-----------------|-----------------|
| Option | Option 709 | Option 713 | Option 720 | Option 732 | Option 743 |
| Frequency | 9 kHz to 9 GHz | 9 kHz to 13 GHz | 9 kHz to 20 GHz | 9 kHz to 32 GHz | 9 kHz to 43 GHz |
| Span | 10 Hz to 9 GHz | 10 Hz to 13 GHz | 10 Hz to 20 GHz | 10 Hz to 32 GHz | 10 Hz to 43 GHz |
| Phase Noise | -108 dBc/Hz at 10 kHz offset at 1 GHz | -102 dBc/Hz at 10 kHz offset at 1 GHz (-106 dBc/Hz typ.) | | | |
| Displayed Average Noise Level | | | | | |
| DANL Preamplifier Off | -146 dBm at 3 GHz | -145 dBm at 3 GHz | | | |
| DANL Preamplifier On | -160 dBm at 3 GHz | -161 dBm at 3 GHz | | | |
| Dynamic | >106 dB | | | | |
| Tracking Generator | 100 kHz to 9/13/20 GHz, -40 dBm to 0 dBm (only for options 709, 713, and 720) | | | | |
| General | | | | | |
| Internal Trace/Setup Memory | >40,000 traces | | | | |
| External Trace/Setup Memory | Size of USB Flash drive | | | | |
| Connections | Connect to PC using USB, LAN, or Direct Ethernet connection | | | | |
| Display | 8.4 inch with 800 x 600 resolution | | | | |
| Operating Temperature | -10 °C to 55 °C | | | | |
| Dimensions | 315 mm x 211 mm x 77 mm, (12.4 in x 8.3 in x 3.0 in) | | | | |
| Weight | 3.7 kg, (8.5 lbs) | | | | |
| Warranty | Standard three-year warranty, One-year warranty on battery | | | | |

Standard Accessories

| Part Number | Description |
|-------------|--|
| 2000-1685-R | Soft Carrying Case |
| 2000-1691-R | Stylus with Coiled Tether |
| 633-75 | High Capacity Li-Ion Battery |
| 40-187-R | AC/DC Power Supply |
| 806-141-R | Automotive Cigarette Lighter 12 Volt DC Adapter |
| 2000-1371-R | Ethernet Cable, 7 feet/213 cm |
| 3-2000-1498 | USB A-mini B Cable, 10 feet/305 cm |
| 2000-1797-R | Touchscreen Protective Film, 8.4 in (one factory-installed, one spare) |
| | Certificate of Calibration and Conformance |

| Options | Description |
|--------------|--|
| MS2720T-0709 | Frequency Range 9 kHz to 9 GHz |
| MS2720T-0713 | Frequency Range 9 kHz to 13 GHz |
| MS2720T-0720 | Frequency Range 9 kHz to 20 GHz |
| MS2720T-0732 | Frequency Range 9 kHz to 32 GHz |
| MS2720T-0743 | Frequency Range 9 kHz to 43 GHz |
| MS2720T-0809 | 9 GHz Tracking Generator (Requires Option 709) |
| MS2720T-0813 | 13 GHz Tracking Generator (Requires Option 713) |
| MS2720T-0820 | 20 GHz Tracking Generator (Requires Option 720) |
| MS2720T-0025 | Interference Analyzer (Option 31 is recommended) |
| MS2720T-0009 | Demodulation Hardware |
| MS2720T-0027 | Channel Scanner |
| MS2720T-0431 | Coverage Mapping (Requires Option 31 for full functionality) |
| MS2720T-0509 | AM/FM/PM Measurements (Option 431 required for full functionality) |
| MS2720T-0024 | I/Q Waveform Capture (Requires Option 9) |
| MS2720T-0089 | Zero-Span IF Output |
| MS2720T-0090 | Gated Sweep |
| MS2720T-0444 | EMF Measurements (Requires Anritsu Isotropic Antenna) |
| MS2720T-0019 | High Accuracy Power Meter (Requires USB Power Sensor, sold separately) |
| MS2720T-0880 | GSM/GPRS/EDGE Measurements (Requires Option 9) |
| MS2720T-0881 | W-CDMA/HSPA+ Measurements (Requires Option 9, Option 31 recommended) |
| MS2720T-0882 | TD-SCDMA/HSPA+ Measurements (Requires Option 9, Option 31 required for full functionality) |
| MS2720T-0883 | LTE FDD/TDD Measurements (Requires Option 9, Option 31 required for full functionality) |
| MS2720T-0886 | LTE 256 QAM Demodulation (Requires Option 883) |
| MS2720T-0884 | CDMA/EV-DO Measurements (Requires Option 9, Option 31 required for full functionality) |
| MS2720T-0885 | WiMAX Fixed/Mobile Measurements (Requires Option 9, Option 31 required for full functionality) |
| MS2720T-0887 | NB-IoT Analyzer (Requires Option 9) |
| MS2720T-0007 | Secure Data Operation |
| MS2720T-0031 | GPS Receiver (Requires GPS Antenna, sold separately) |
| | 2000-1528-R GPS Antenna, SMA(m) with 5 m (15 ft) cable, requires 5 VDC |
| | 2000-1652-R GPS Antenna, SMA(m) with 0.3 m (1 ft) cable, requires 3.3 VDC or 5 VDC |
| | 2000-1760-R GPS Antenna, SMA(m) with no cable, requires 2.5 VDC to 3.7 VDC |
| MS2720T-0098 | Standard Calibration (ANSI Z540-1-1994) |
| MS2720T-0099 | Premium Calibration (ANSI Z540-1-1994 plus test data) |

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