Quick Fact Sheet

Spectrum Master™ MS2720T

9 kHz to 9/13/20 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 µs wide or wider
- Frequency Accuracy: GPS On: ±25 ppb, GPS Off: ±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 Preamplifier standard
- High Accuracy Power 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
Frequency	9 kHz to 9 GHz	9 kHz to 13 GHz	9 kHz to 20 GHz
Span	10 Hz to 9 GHz	10 Hz to 13 GHz	10 Hz to 20 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-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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