

## Quick Fact Sheet

# Spectrum Master™ MS2720T

9 kHz a 9 GHz, 13 GHz, 20 GHz, 32 GHz, 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  $\mu$ 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 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	9 kHz to 43
Frequency	10 Hz to 9 GHz	10 Hz to 13 GHz	10 Hz to 20 GHz	10 Hz to 32	10 Hz to 43
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	-146 dBm at 3 GHz <span style="float: right;">-145 dBm at 3 GHz</span>
DANL Preamplifier	-160 dBm at 3 GHz <span style="float: right;">-161 dBm at 3 GHz</span>
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	
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, 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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