

ANRITSU

MS2720T

The Anritsu Spectrum Master MS2720T is a high-performance handheld spectrum analyzer designed for field technicians and engineers. Offering continuous frequency coverage up to 43 GHz, it delivers benchtop-grade measurements in a portable, ruggedized form factor, featuring an 8.4-inch touchscreen and optional tracking generators up to 20 GHz.

SPECIFICATIONS

General

Interfaces	USB Type A (x2), USB Type Mini-B, 10/100 Base-T Ethernet (LAN) RJ45
Display	8.4-inch SVGA Touchscreen, 800 x 600 resolution
Internal Memory Capacity	Internal: > 40,000 traces, > 40,000 screens, > 10,000 setups
EMC Standards	EN 61326-1, Class A
Safety Standards	EN 61010-1

Physical

Power Supply	AC/DC Adapter: 100 to 240 VAC, 50/60 Hz; External DC Input: 12 to 15 VDC
Operating Temperature	-10 °C to +55 °C °C
Dimensions (W×H×D)	315 mm × 211 mm × 77 mm mm
Weight	4.4 to 4.9 kg kg

Frequency Specifications

Frequency Range (MS2720T-0709)	9 kHz to 9 GHz
Frequency Range (MS2720T-0713)	9 kHz to 13 GHz
Frequency Range (MS2720T-0720)	9 kHz to 20 GHz
Frequency Range (MS2720T-0732)	9 kHz to 32 GHz
Frequency Range (MS2720T-0743)	9 kHz to 43 GHz
Frequency Tuning Resolution	1 Hz
Frequency Span Range	10 Hz to max frequency of model, plus 0 Hz (zero span)
Internal Frequency Reference Aging	±1.0 ppm/10 years
Internal Frequency Reference Accuracy	±0.12 ppm (after 20 min warm-up) / ±0.05 ppm (with GPS ON)

Resolution and Video Bandwidths (RBW/VBW)

Resolution Bandwidth (RBW) Range	1 Hz to 10 MHz
Resolution Bandwidth Step Type	1-3 sequence (1 Hz, 3 Hz, 10 Hz, 30 Hz...)
Resolution Bandwidth Accuracy	±10 % (1 Hz to 10 MHz, -3 dB)
Video Bandwidth (VBW) Range	1 Hz to 10 MHz
Video Bandwidth Step Type	1-3 sequence
Zero Span Bandwidth Options	Supports up to 10 MHz RBW & VBW

Sweep and Triggering

Sweep Modes	Performance, Fast, No FFT, Burst Detect
Burst Detect Capture Duration	Captures bursts as short as 200 µs
Sweep Trigger Sources	Free Run, Video, External, Gated, GPS
Trigger Settings	Hysteresis, Hold-off, Delay

Amplitude and Level Specifications

Measurement Range	DANL to +30 dBm
Maximum Safe Input Level (Continuous Wave, >= 10 dB Attenuation)	+30 dBm Peak, ±50 VDC
Maximum Safe Input Level (Continuous Wave, Preamp ON)	+10 dBm Peak, ±50 VDC
Display Range	1 to 15 dB/div in 1 dB steps, ten divisions displayed
Input Attenuation Range	0 to 65 dB
Input Attenuation Step Size	5.0 dB
Reference Level Range	-150 dBm to +30 dBm
Level Display Units (Log)	dBm, dBV, dBmV, dBµV
Level Display Units (Linear)	nV, µV, mV, V, kV, nW, µW, mW, W, kW

Spectral Purity and Dynamic Range

Dynamic Range	>106 dB minimum at 2.4 GHz (2/3 TOI-DANL in 1 Hz RBW)
SSB Phase Noise at 1 GHz (10 kHz offset)	-112 dBc/Hz
SSB Phase Noise (9 GHz model, 100 kHz offset)	-110 dBc/Hz maximum (-115 dBc/Hz typical)

Tracking Generator (Option)

Tracking Generator Frequency Range	100 kHz to 9, 13, or 20 GHz (option dependent)
Tracking Generator Power Step Size	0.1 dB

Measurement Capabilities and Software Suites

Standard Smart Measurements	Field Strength, Occupied Bandwidth (OBW), Channel Power, ACPR, AM/FM/SSB Demodulation, Carrier-to-Interference (C/I), Emission Mask
Channel Power Measurement	Measures the total power in a specified bandwidth
AM/FM/SSB Demodulation	AM, wide/narrow FM, upper/lower SSB (audio output only)
Optional Cellular/Wireless Technology Standards	LTE (FDD & TDD), GSM/GPRS/EDGE, W-CDMA/HSPA+, TD-SCDMA/HSPA+, CDMA/EV-DO
LTE Measurements Bandwidth	Up to 20 MHz
Interference Analyzer Option	Spectrogram, Signal Strength Meter, Interference Mapping
High Accuracy Power Meter	Supported (Option)
IF Output Option	30 MHz wide Zero-Span IF Output at 140 MHz center frequency

Port and Interface Connections

RF Input Connector (9, 13, 20 GHz models)	Type N, female, 50 Ω
RF Input Connector (32, 43 GHz models)	Ruggedized Type K, male, 50 Ω
External Reference Input Frequency	10 MHz
External Trigger Input Connector	BNC, female
External Audio Headphone Jack	3.5 mm 3-conductor headset jack
GPS Antenna Input Connector	SMA, female (with GPS option)

Display and User Interface

Display Options for Readability	Normal, black and white, night vision, or high contrast
Number of Traces	6
Trace Detection Modes	Peak, RMS, Negative, Sample, Normal
Marker Functions	6 markers, delta markers, noise markers, frequency counter

Power and Battery Management

Battery Operating Time	Up to 3 hours typical
------------------------	-----------------------

Physical and Ergonomic Design

Weight (9, 13, 20 GHz models)	4.4 kg (9.7 lbs) including battery
Weight (32, 43 GHz models)	4.9 kg (10.8 lbs) including battery

Environmental and Compliance

Storage Temperature Range	-40 °C to +75 °C
Recommended Calibration Cycle	12 months

Performance

Third-Order Intercept (TOI)	+20 dBm typical (at 2.4 GHz, Preamp Off)
Absolute Amplitude Accuracy	±0.3 dB
Internal Frequency Reference Temperature Stability	±0.02 ppm (0 °C to 50 °C)
Quasi-Peak Detector	Standard (with 200 Hz, 9 kHz, 120 kHz CISPR resolution bandwidths)

Inputs & Outputs

Maximum RF Input DC Voltage	±50 VDC
USB Interfaces	2 x USB Type A (Host), 1 x USB Mini-B (Device)
Ethernet Interface	10/100 Base-T (RJ-45)
External Reference Input Level	-10 dBm to +10 dBm
RF Input Impedance	50 Ω
RF Input VSWR	< 1.5:1 typical (9 GHz and 13 GHz models, ≥ 10 dB attenuation); < 1.8:1 typical (20 GHz, 32 GHz, and 43 GHz models, ≥ 10 dB attenuation)
Tracking Generator Connector	N female (9, 13, 20 GHz models with Option 809/813/820)
External Trigger Input Level	TTL threshold (minimum high level ≥ 1.4 V, maximum low level ≤ 0.4 V)
GPS Antenna Voltage	3.3 V or 5.0 V (software selectable for active antennas)

Tracking Generator Option

Tracking Generator Output Power Range	-50 dBm to 0 dBm (Option 809/813/820)
---------------------------------------	---------------------------------------

IF Output Option

IF Output Center Frequency	140 MHz (Option 89)
IF Output Bandwidth	30 MHz (Option 89)

GPS Option

GPS Frequency Accuracy	±25 ppb (with GPS on and locked, Option 31)
------------------------	---

Display

Display Resolution	800 × 600 pixels (SVGA)
--------------------	-------------------------

Power

Power Consumption	26 W typical (spectrum analyzer only, battery charging off); 35 W typical (with Tracking Generator, battery charging off)
Battery Type	Lithium-ion

Environmental

Maximum Operating Altitude	4,600 m (15,000 ft)
Operating Humidity	95% non-condensing
Environmental Class	MIL-PRF-28800F Class 2

Receiver & Front End

Tracking Preselector	Standard on all models (9 kHz to maximum frequency of the model)
----------------------	--

Bandwidth

Resolution Bandwidth Shape Factor	< 5:1 (60 dB / 3 dB bandwidth)
-----------------------------------	--------------------------------

Sweep Functions

Gated Sweep Option	Option 0090
Gated Sweep Setup	Gate Delay: 1 µs to 10 s; Gate Length: 1 µs to 10 s
Zero Span Sweep Time Range	10 µs to 600 s

Frequency

Preamplifier Frequency Range	100 kHz to 9/13/20/32/43 GHz (model dependent)
------------------------------	--

TECHNOLOGY

Superheterodyne Spectrum Analysis

APPLICATIONS

RF/Microwave Signal Analysis, Spectrum Monitoring, Interference Hunting, Cellular Network Testing

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.