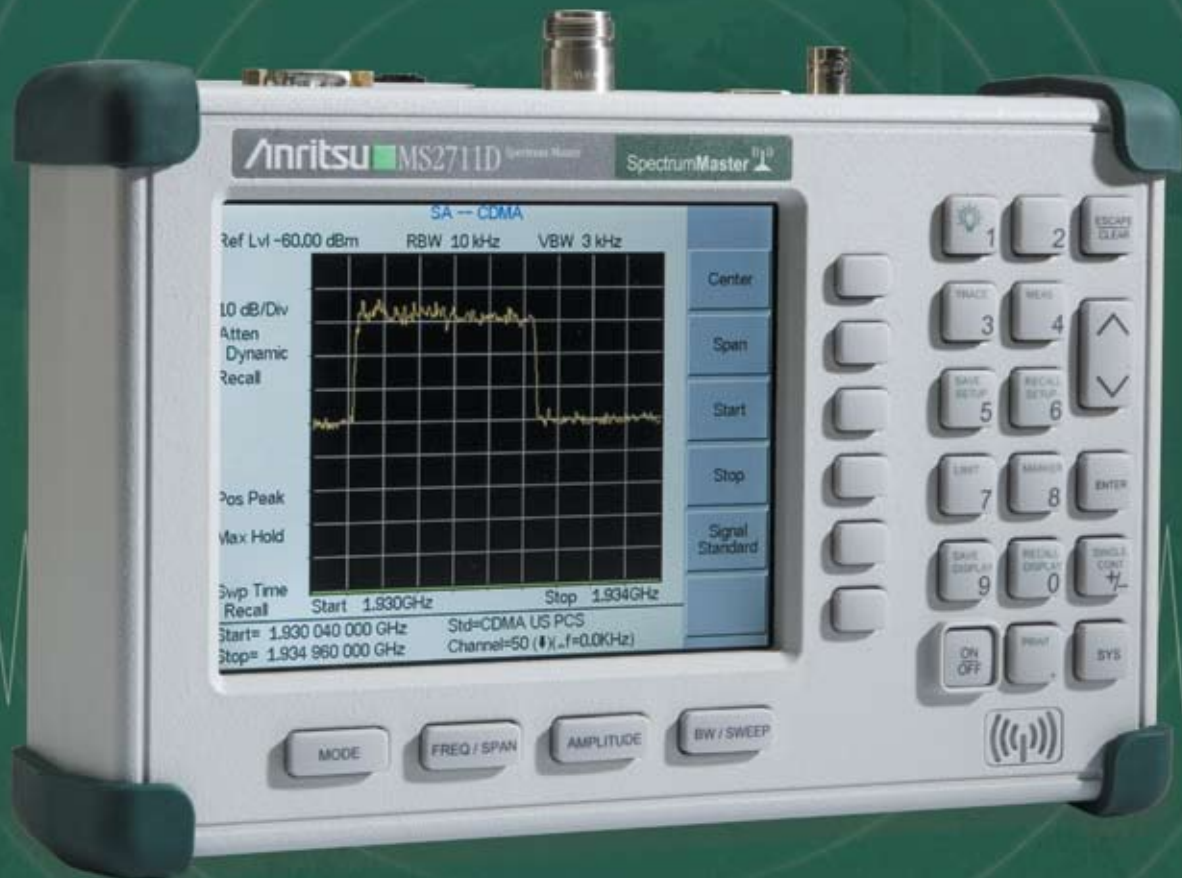


Spectrum Master™ MS2711D

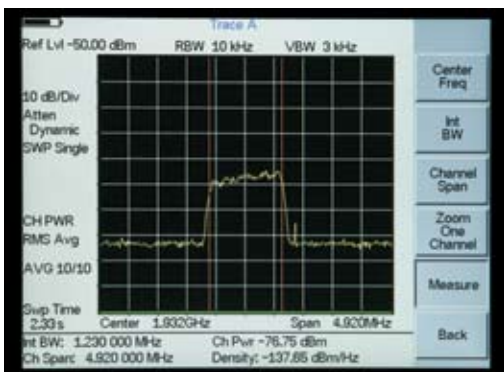
Fast, Accurate, Repeatable, Portable Spectrum Analysis



Accurate | Rugged | Easy to use – Powerful

The Anritsu Spectrum Master MS2711D provides ultimate measurement flexibility in a package that is ruggedized for field environments and light enough for mobile applications. Unlike traditional spectrum analyzers, the MS2711D features a rugged, ultra-lightweight, battery-operated design that allows users to conduct spectrum analysis measurements – anywhere, anytime.

With the MS2711D, you can locate, identify, record, and solve communication systems problems quickly and easily, and with incredible accuracy. Whether you are installing, maintaining, or troubleshooting, the MS2711D provides exceptional performance combined with ease-of-use and broad functionality – making it a perfect solution for conducting field measurements in the 100 kHz to 3.0 GHz frequency range. For instance, it is perfect for locating the source of interfering signals. The addition of Option 25, Interference Analysis, makes the instrument particularly well suited for the application.



Rugged and Reliable

Because the MS2711D was designed specifically for field environments, it can easily withstand the day-to-day punishment of field use. The analyzer is almost impervious to the bumps and bangs typically encountered by portable field-based equipment.

Easy-to-Use

At less than five pounds, the MS2711D is the lightest fully-functional spectrum analyzer available. Operation is straightforward; measurements are obtained through a menu-driven user interface that is easy to use and requires little training. The day-light viewable TFT display is large and high-resolution, making interpreting test results easy and quick.

A full range of marker capabilities — such as peak, center, and delta functions — give users fast and comprehensive analysis of displayed signals. Limit lines simplify amplitude measurements, allowing users to create quick, simple, pass/fail tests. Frequency, span, and amplitude functions are easily configured for optimum performance. Used together with the Save Setup feature, these functions make testing easier and faster for users of all experience levels.

Spectrum Analysis For Field Applications

Options

The MS2711D's capabilities expand to meet your needs. Available options include a built-in bias tee (Option 10A) for biasing amplifiers under test, a frequency converter controller module (Option 6) to drive Anritsu frequency extension modules, an internal signal source (Option 21) for transmission measurements, and an internal power meter (Option 29) for accurate power measurement. External power monitor (Option 5) for broadband power measurements to 50 GHz, and interference analysis (Option 25) to provide a spectrogram display of signals over time, RSSI and signal strength with audible indicator. Also available are a Channel Scanner (Option 27), CW Signal Generator (Option 28), and a built-in GPS receiver (Option 31).

Powerful Trace Management

The unit's internal memory stores up to 10 test setups and 300 measurement traces. The stored data can be easily downloaded to a personal computer (PC) or a printer via an RS-232 serial cable. A notebook computer can be used with the RS-232 interface for automated control and data collection in the field. Handheld Software Tools™ is a powerful data analysis software that comes with every MS2711D. This software allows you to print professional reports for your customers documenting your measurements and saving the traces for future comparison.



≤-135 dBm Noise Floor

To meet the challenges of today's wireless systems, the revolutionary MS2711D handheld spectrum analyzer incorporates a pre-amp which increases the analyzer's sensitivity and dynamic range, and improves measurement time. The built-in pre-amp makes the MS2711D particularly effective in measuring low-level signals.

The handheld spectrum analyzer's sensitivity is ≤-135 dBm (100 Hz RBW; full span). With the preamplifier turned on, the MS2711D can identify and make measurements on low-level signals much faster than previously possible.

+43 dBm Maximum Safe Input Level

Unlike any other spectrum analyzer on the market today, the MS2711D can tolerate an input signal of +43 dBm (20 watts) – without damage. You can be assured that the MS2711D can survive in even the toughest RF environments.



Light Weight

Weighing less than five pounds fully loaded including a NiMH battery, this fully functional handheld spectrum analyzer is light enough to take anywhere, including up a tower.

“Smart” Measurements

The MS2711D has dedicated routines for one-button measurements of field strength, channel power, occupied bandwidth, Adjacent Channel Power Ratio (ACPR), C/I, and interference analysis. These are increasingly critical measurements for today’s wireless communication systems. The simple interface for these complex measurements significantly reduces test time and increases analyzer usability.

Fast Sweep Speed

The MS2711D can do a full span sweep in ≤ 1.1 seconds, and sweep speed in zero span can be set from less than 50 μ s up to 200 seconds. Fast sweeps simplify the capture of intermittent interfering signals.

AM/FM/SSB Demodulator

A built-in demodulator for AM, narrowband FM, wideband FM and single sideband (selectable USB and LSB) allows a technician to easily identify interfering signals.

Dynamic Attenuation

With Dynamic Attenuation enabled, the MS2711D automatically activates or de-activates the built-in preamplifier according to the overall input signal amplitude. Dynamic attenuation tracks the input signal level, automatically adjusting the attenuation level to protect the MS2711D in situations of high RF signal levels, or enhancing the instrument’s sensitivity in situations of low-level RF signal input.

High Accuracy Power Meter (Option 19)

Anritsu’s High Accuracy Power Meter option enables users to make high accuracy RMS measurements, perfect for both CW and digitally modulated signals such as CDMA/EV-DO, GSM/EDGE, and WCDMA/HSDPA. This option requires sensor PSN50 or MA24104A. The PSN50 sensor provides high accuracy measurements from 50 MHz to 6 GHz with a dynamic range from -30 to $+20$ dBm. The MA24104A is an Inline High Power Sensor with a frequency range from 600 MHz to 4 GHz and can measure signals as high as 150 W. Both of the sensors are equipped with an RS-232 interface for fast and easy connection to the Spectrum Master.

Transmission Measurement (Option 21)

An optional built-in 25 MHz to 3 GHz signal source provides the capability to measure loss or gain of two-port devices such as filters, cables, attenuators and amplifiers.

CW Signal (Option 28)

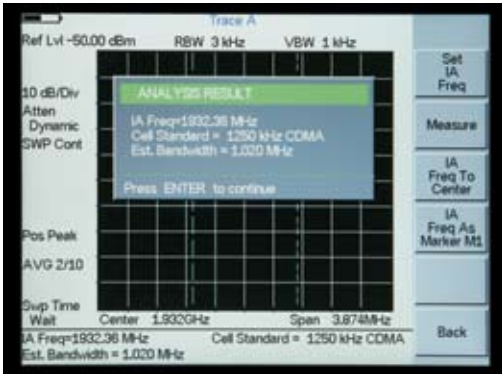
When used with a 61534 Attenuator Kit, provides a CW signal from -6 dBm to -80 dBm in 1 dB step from 25 MHz to 2 GHz. The attenuator connected to the RF port can be varied from 0 to 90 dB in 1 dB steps and the splitter divides the signal into two signals: One is fed into the device under test and one is fed into the Spectrum Analyzer Receiver port. The display shows the output power and the frequency. The CW Signal mode and the Power Monitor mode can be operated simultaneously in units with both options installed providing the user with the flexibility to send out and monitor a signal at the same time.



PSN50
High Accuracy
Power Sensor

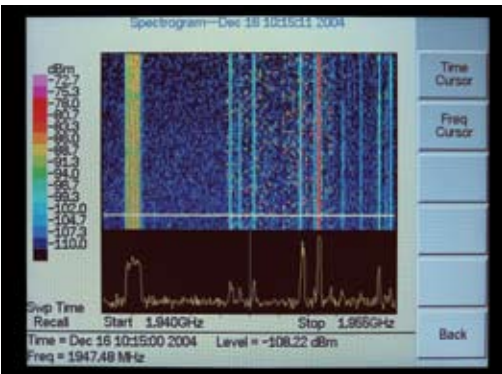


MA24104A Inline
High Power Sensor



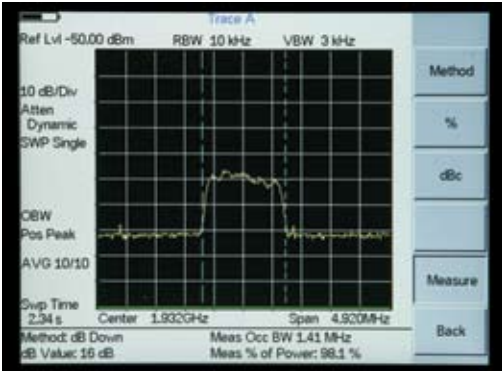
Carrier to Interference Measurement

As more 802.11 access points are installed, there will be an increasing level of interference in the 2.4 GHz band occupied by this service and other devices such as cordless telephones. This measurement capability makes it simple for an access point installer to determine if the level of interference is sufficient to cause difficulty for users in the intended service area, and can show the need to change to another access channel.



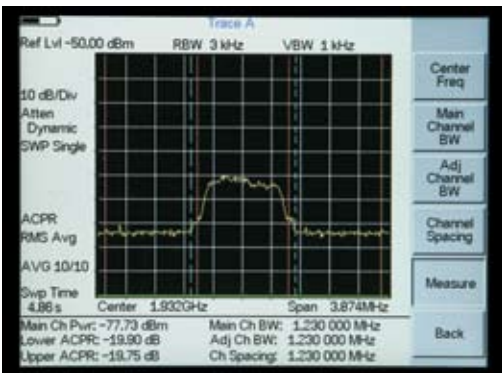
Interference Analysis

Interference Analysis is Option 25 in the MS2711D. The capabilities delivered by this option are a spectrogram display that shows multiple sweeps over time with color being used to show signal amplitude. This is a powerful means of seeing interfering signals as they come and go. A received signal strength indicator (RSSI) is part of this option. RSSI shows a graph of the signal strength at a single frequency over time. Also included is an audible signal strength indicator used with a directional antenna to determine the direction of arrival of a signal. The audible output can be heard using the built-in speaker or, for privacy, a set of headphones.



Occupied Bandwidth

This measurement calculates the bandwidth containing the total integrated power occupied in a given signal bandwidth. There are two different methods of calculation depending on the technique used to modulate the carrier. The user can specify percent of power or the "x" dB down point, where "x" can be from 3 dB to 120 dB below the carrier.

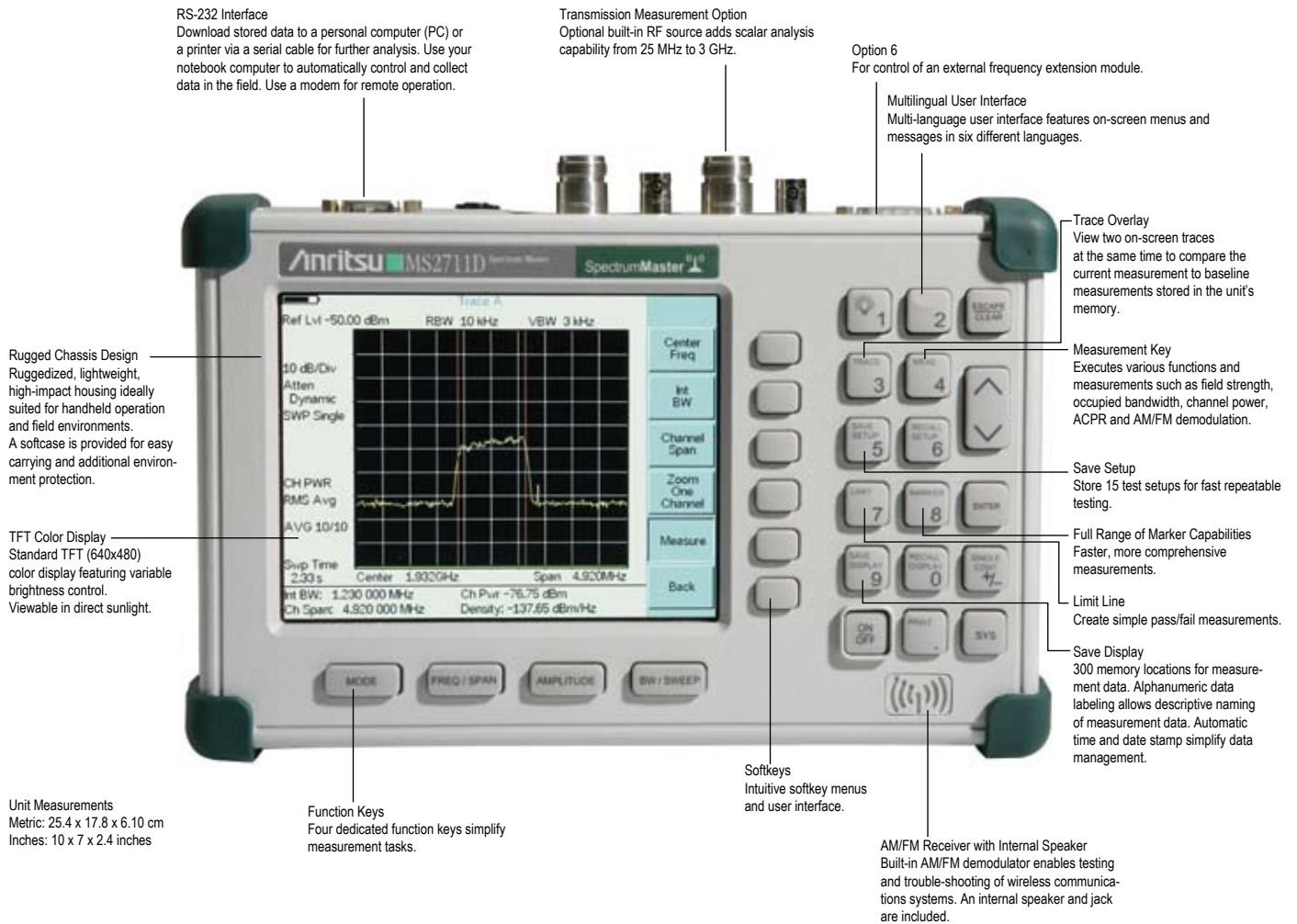


Adjacent Channel Power Ratio

A common transmitter measurement is that of adjacent channel leakage power. This is the ratio of the amount of leakage power in an adjacent channel to the total transmitted power in the main channel. This measurement is used to replace the traditional two-tone intermodulation distortion (IMD) test for system non-linear behavior.

The result of an ACPR measurement can be expressed either as a power ratio or a power density. In order to calculate the upper and lower adjacent channel values, the MS2711D allows the adjustment of four parameters to meet specific measurement needs: main channel center frequency, measurement channel bandwidth, adjacent channel bandwidth and channel spacing. When an air interface standard is specified in the MS2711D, all these values are automatically set to the normal values for that standard.

Spectrum Master – Fast, Accurate, Repeatable, Portable Spectrum Analysis



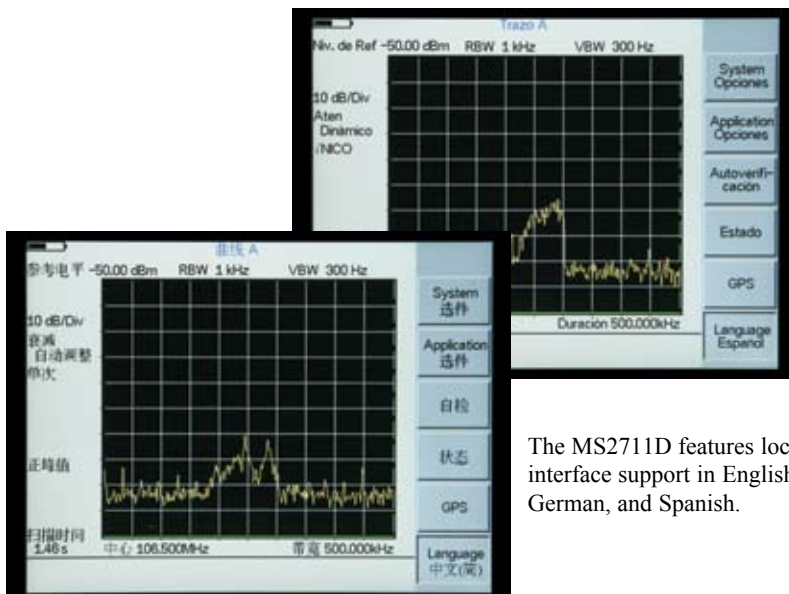
Flexibility and Ease of Use

The FCN4760 is a block down converter for the 4.7 to 6.0 GHz frequency range. It is designed to work with an Anritsu Spectrum Master MS2711D equipped with Option 6.

This converter is primarily intended for field use by fixed wireless engineers who are responsible for the design, deployment and optimization of 802.11a networks. It is also used to conduct interference analysis measurements to determine the level of interference and locate the sources of interference.



MS2711D Spectrum Master with FCN4760 block down converter



The MS2711D features local language graphical user interface support in English, Chinese, Japanese, French, German, and Spanish.

Specifications

Frequency

Frequency Range: 100 kHz to 3.0 GHz (tuneable to 9 kHz)

Frequency Reference: Aging: ± 1 ppm/yr, Accuracy: ± 2 ppm

Frequency Span: 10 Hz to 2.99 GHz in 1, 2, 5 step selections in auto mode, plus zero span

Sweep Time: ≤ 1.1 sec full span; ≤ 50 μ sec to 20 sec selectable in zero span

Resolution bandwidth (-3 dB width): 100 Hz to 1 MHz in 1-3 sequence, $\pm 5\%$

Video bandwidth (-3 dB): 3 Hz to 1 MHz in 1-3 sequence, $\pm 5\%$ typical

SSB Phase Noise (1 GHz) at 30 kHz Offset: ≤ -75 dBc/Hz

Spurious Responses Input Related: ≤ -45 dBc

Spurious Residual Responses: ≤ -90 dBm, ≥ 10 MHz

≤ -80 dBm, < 10 MHz

(10 kHz RBW, pre-amp on)

Amplitude

Total Level Accuracy:

± 1 dB typical (± 1.5 dB max), ≥ 10 MHz to 3 GHz,

± 2 dB typical < 10 MHz for input signal levels

≥ -60 dBm, excluding input VSWR mismatch

Measurement Range: +20 dBm to -135 dBm

Input Attenuator Range: 0 to 51 dB, selected manually or automatically coupled to the reference level. Resolution in 1 dB steps.

Displayed Average Noise Level (Input terminated, 0 dB attenuation, RMS detection, 100 Hz RBW):

≤ -135 dBm, ≥ 10 MHz (preamp on)

≤ -115 dBm, < 10 MHz (preamp on)

Dynamic Range: > 65 dB typical

Display Range: 1 to 15 dB/division, in 1 dB steps, 10 divisions displayed

Scale Units: dBm, dBV, dBmV, dB μ V, V, W

RF Input VSWR: (with ≥ 20 dB attenuation), 1.5:1 typical, (10 MHz to 2.4 GHz)

General

Internal Trace Memory: 300 maximum

Setup Storage: 10 test setups

Display: VGA Monochrome or VGA Color (option 3) with adjustable backlight

Inputs and Outputs Ports:

RF Out: Type N, female, 50 Ohm

Maximum Input without Damage: +23 dBm, ± 50 VDC

RF In: Type N, female, 50 Ohm

Maximum Input without Damage: +43 dBm (peak), ± 50 VDC

Serial Interface: RS-232 9 pin D-sub, three wire serial

Electromagnetic Compatibility: Meets European community requirements for CE marking.

Safety: Conforms to EN 61010-1 for Class 1 portable equipment

Temperature:

Operating: -10° C to 55° C, humidity 85% or less

Non-operating: -51° C to $+71^{\circ}$ C (Recommend the battery be stored separately between 0° C and 40° C for any prolonged storage period.)

Environmental: MIL-PRF-28800F Class 2

Power Supply:

External DC Input: +12.5 to +15 VDC, 3A max

Internal: NiMH battery: 10.8 VDC, 1800 mAh

Dimensions:

Size (W x H x D): 25.4 cm x 17.8 cm x 6.10 cm (10.0 in x 7.0 in x 2.4 in)

Weight: 2.14 kg (4.7 lbs.) includes battery, 2.28 kg (5 lbs)

includes transmission measurement signal source

Options

Option 5 – Power Monitor (requires external detector)

Measurement Range: –50 to +16 dBm (10 nW to 40 nW)
Offset Range: 0 to 60 dB
Display Range: –80 to 80 dBm
Resolution: 0.1 dB, 0.1 xW
Measurement Accuracy: ± 1 dB maximum for > –40 dBm and <18 GHz

Option 6 – Frequency Converter Control Module

Connector providing internal control signals to drive an external Anritsu frequency extension module

Option 10A – Bias Tee Specifications

Voltage: 12 to 24 Vdc
Power: 6 W max, steady state

Option 19 – High Accuracy Power Meter

Compatible Sensors: PSN50 and MA24104A

PSN50 High Accuracy Power Sensor
Frequency Range: 50 MHz to 6 GHz
Measurement Range: –30 to +20 dBm
Linearity: ± 0.13 dB
Input Connector: Type N, female, 50 Ω
Complete Technical Datasheet: p/n 11410-00423

MA24104A Inline High Power Sensor
Frequency Range: 600 MHz to 4 GHz
Measurement Range: +3 dBm to +51.76 dBm (2 mW to 150 W)
Linearity: ± 0.13 dB
Input Connector: Type N, male, 50 Ω
Complete Technical Datasheet: p/n 11410-00483

Option 21 – Transmission Measurement Specifications

Frequency Range: 25 MHz to 3 GHz
Frequency Resolution: 10 Hz
Output Power Level: –10 dBm typical
Dynamic Range: 80 dB, 25 MHz to 2 GHz
60 dB, >2 GHz to 3 GHz
(when using dynamic attenuation)
Output Impedance: 50 Ω

Option 25 – Interference Analyzer

Signal Strength with audible tone option
RSSI
Spectrogram

Option 27 – Channel Scanner

Frequency Range: 100 kHz to 3.0 GHz
Frequency Accuracy: ± 10 Hz + Time base error, 99% Confidence level
Measurement Range: +20 dBm to –110 dBm
Channel Power: ± 1 dB typical (± 1.5 dB max)
Adjacent Channel Power Accuracy: ± 0.75 dBc

Option 28 – CW Signal Generator

Requires CW Signal Generator Kit (part number 61534)

Option 29 – Power Meter Specifications

Frequency Range: 3 MHz to 3.0 GHz
Measurement Range: –80 dBm to +20 dBm
(+80 dBm with 60 dB external attenuator)
Display Range: –80 dBm to +80 dBm
Offset Range: 0 to +60 dB
Accuracy:** ± 1 dB typical (± 1.5 dBm max), ≥ 10 MHz to 3 GHz
± 2 dB typical, 3 MHz to <10 MHz
VSWR: 1.5:1 typical ($P_m > -30$ dBm, >10 MHz to 2.4 GHz)
Maximum Power: +20 dBm (0.1W) without external attenuator
**(Excludes Input VSWR)

Option 31 – GPS

GPS Location Indicator
Latitude, Longitude and Altitude on Display
Latitude, Longitude and Altitude with trace storage

FCN4760 – Frequency Converter Specifications

Frequency:
Frequency Range: 4.7 GHz to 6 GHz
Frequency Resolution: 10 Hz
Frequency Reference: Aging ± 1 ppm/yr
Accuracy: ± 2 ppm
SSB Phase Noise (6 GHz) at 30 kHz Offset: ≤ –65 dBc/Hz
Spurious Responses Input Related: ≤ –45 dBc
Spurious Residual Responses: ≤ –90 dBm

Amplitude:
Measurement Range: –40 dBm to –100 dBm
Sensitivity (displayed average noise level): –100 dBm
Accuracy: ± 1.25 dB typical (± 1.75 dB max.)
Maximum Input Level without Damage: –5 dBm

General:
Input and Output Ports: RF In: Type N, female, 50 Ω
RF Out (to MS2711D): Type N, male, 50 Ω
Communication Interface: Proprietary

Electromagnetic Compatibility: Meets European community requirements for CE marking

Safety: Conforms to EN 61010-1 for Class 1 portable equipment

Operating Temperature: –10 °C to 50 °C, humidity 85% or less –50 °C to –80 °C

Power Dissipation: 850 mW max

Dimensions:

Size (W x H x D): 6.6 cm x 10.9 cm x 3.3 cm (2.6 in. x 4.3 in. x 1.3 in.)
Weight: <0.45 kg (<1 lb.)

Ordering Information

Model: MS2711D - Handheld Spectrum Analyzer: 100 kHz to 3 GHz

Options

Option 5	Power Monitor (requires external detector)
Option 6	Frequency Converter Control Module
Option 10A	+12 to +24 V Variable Bias Tee
Option 19	High Accuracy Power Meter (sensor not included)
Option 21	Transmission Measurement
Option 25	Interference Analyzer (best with directional antenna)
Option 27	Channel Scanner
Option 28	CW Signal Generator (requires CW Signal Generator Kit p/n: 61534)
Option 29	Power Meter
Option 31	GPS Receiver for location information, (includes GPS antenna)

Standard Accessories

65717	Soft Carrying Case
633-27	Rechargeable Battery, Ni-MH
40-168-R	AC-DC Adapter
806-141	Automotive Cigarette Lighter 12 Volt DC Adapter
2300-347	Handheld Software Tools CDROM
800-441	Serial Interface Cable (null modem type)
551-1691-R	USB to RS-232 Adapter Cable
10580-00097	MS2711D Spectrum Master User's Guide One Year Warranty

Precision Adapters

34NN50A	Precision Adapter, N(m)-N(m), DC to 18 GHz, 50 Ω
34NFN50	Precision Adapter, N(f)-N(f), DC to 18 GHz, 50 Ω

Adapters

510-90	Adapter, 7/16 DIN(f)-N(m), DC to 7.5 GHz, 50 Ω
510-91	Adapter, 7/16 DIN(f)-N(f), DC to 7.5 GHz, 50 Ω
510-92	Adapter, 7/16 DIN(m)-N(m), DC to 7.5 GHz, 50 Ω
510-93	Adapter, 7/16 DIN(m)-N(f), DC to 7.5 GHz, 50 Ω
510-96	Adapter, 7/16 DIN(m)-7/16 DIN(m), DC to 7.5 GHz, 50 Ω
510-97	Adapter, 7/16 DIN(f)-7/16 DIN(f), DC to 7.5 GHz, 50 Ω

Test Port Cables, Armored

15NN50-1.5C	Test Port Cable Armored, 1.5 meters, N(m)-N(m), 6 GHz, 50 Ω
15NN50-3.0C	Test Port Cable Armored, 3.0 meters, N(m)-N(m), 6 GHz, 50 Ω
15NN50-5.0C	Test Port Cable Armored, 5.0 meters, N(m)-N(m), 6 GHz, 50 Ω
15NNF50-1.5C	Test Port Cable Armored, 1.5 meters, N(m)-N(f), 6 GHz, 50 Ω
15NNF50-3.0C	Test Port Cable Armored, 3.0 meters, N(m)-N(f), 6 GHz, 50 Ω
15NNF50-5.0C	Test Port Cable Armored, 5.0 meters, N(m)-N(f), 6 GHz, 50 Ω
15ND50-1.5C	Test Port Cable Armored, 1.5 meters, N(m)-7/16 DIN(m), 6 GHz, 50 Ω
15NDF50-1.5C	Test Port Cable Armored, 1.5 meters, N(m)-7/16 DIN(f), 6 GHz, 50 Ω

Antennas

2000-1200	Portable Antenna, SMA (m), 806-866 MHz, 50 Ω
2000-1473	Portable Antenna, SMA (m), 870-960 MHz, 50 Ω
2000-1035	Portable Antenna, SMA (m), 896-941 MHz, 50 Ω
2000-1030	Portable Antenna, SMA(m), 1.71 to 1.88 GHz, 50 Ω
2000-1474	Portable Antenna, SMA(m), 1.71 to 1.88 GHz, 50 Ω
2000-1031	Portable Antenna, SMA(m), 1.85 to 1.99 GHz, 50 Ω
2000-1475	Portable Antenna, SMA(m), 1.92 to 1.98 and 2.11 to 2.17 GHz, 50 Ω
2000-1032	Portable Antenna, SMA(m), 2.4 to 2.4835 GHz, 50 Ω
2000-1410	Magnet Mount GPS Antenna with 15-foot cable

Directional Antennas

2000-1411-R	Portable Yagi Antenna, N(f), 822 to 900 MHz, 10 dBd
2000-1412-R	Portable Yagi Antenna, N(f), 885 to 975 MHz, 10 dBd
2000-1413-R	Portable Yagi Antenna, N(f), 1710 to 1880 MHz, 10 dBd
2000-1414-R	Portable Yagi Antenna, N(f), 1850 to 1990 MHz, 9.3 dBd
2000-1416-R	Portable Yagi Antenna, N(f), 1920 to 2170 MHz, 12 dBd
2000-1415-R	Portable Yagi Antenna, N(f), 2400 to 2500 MHz, 12 dBd

Filters

1030-114-R	Filter, Bandpass, 806 to 869 MHz, N(m)-SMA(f), 50 Ω
1030-109-R	Filter, Bandpass, 824 to 849 MHz N(m)-SMA(f), 50 Ω
1030-110-R	Filter, Bandpass, 880 to 915 MHz, N(m)-SMA(f), 50 Ω
1030-105-R	Filter, Bandpass, 890 to 915 MHz, N(m)-N(f), 50 Ω
1030-111-R	Filter, Bandpass, 1850 to 1910 MHz, N(m)-SMA(f), 50 Ω
1030-106-R	Filter, Bandpass, 1710 to 1790 MHz, N(m)-N(f), 50 Ω
1030-107-R	Filter, Bandpass, 1910 to 1990 MHz, N(m)-N(f), 50 Ω
1030-112-R	Filter, Bandpass, 2400 to 2484 MHz, N(m)-SMA(f), 50 Ω

Attenuators

3-1010-119	Attenuator, 10 dB, 2 W, DC to 6 GHz
3-1010-122	Attenuator, 20 dB, 5 W, DC to 12.4 GHz, N(m)-N(f)
42N50-20	Attenuator, 20 dB, 5 W, DC to 18 GHz, N(m)-N(f)
3-1010-123	Attenuator, 30 dB, 50 W, DC to 8.5 GHz, N(m)-N(f)
42N50A-30	Attenuator, 30 dB, 50 W, DC to 18 GHz, N(m)-N(f)
1010-127-R	Attenuator, 30 dB, 150 W, DC to 3 GHz, N(m)-N(f)
3-1010-124	Attenuator, 40 dB, 100 W, DC to 8.5 GHz, N(m)-N(f), Uni-directional
1010-121	Attenuator, 40 dB, 100 W, DC to 18 GHz, N(m)-N(f)
1010-128-R	Attenuator, 40 dB, 150 W, DC to 3 GHz, N(m)-N(f)

Miscellaneous Accessories

633-27	Rechargeable Battery, Ni-MH
806-141	Automotive Cigarette Lighter/12 Volt DC Adapter
40-168-R	AC/DC Adapter
2000-1029	Battery Charger, NiMH, w/ Universal Power Supply
551-1691-R	USB to RS-232 Adapter Cable
800-441	Serial Interface Cable
70-28	Headset
65717	Soft Carrying Case
67135	Site Master Backpack
760-243-R	Transit Case
FCN4760	Frequency Converter, 4.7 GHz to 6 GHz
61534	CW Signal Generator Kit with variable step attenuator
65701	3 GHz Offset Cal Kit consisting of one each: 3-1010-119, 10 dB Attenuator, DC to 6 GHz, 2W, 3-806-151, 4 GHz Cable, 18" (46 cm)
2300-347	Handheld Software Tools CDROM

Power Monitor Detectors

5400-71N50	Detector, .001 to 3 GHz, N(m), 50 Ω
5400-71N75	Detector, .001 to 3 GHz, N(m), 75 Ω
560-7N50B	Detector, 10 MHz to 20 GHz, N(m), 50 Ω
560-7S50B	Detector, 10 MHz to 20 GHz, WSMa(m), 50 Ω
560-7K50	Detector, 10 MHz to 40 GHz, K(m), 50 Ω
560-7VA50	Detector, 10 MHz to 50 GHz, V(m), 50 Ω

Power Monitor Extender Cables

800-109	7.6 m (25 ft)
800-111	30.5 m (100 ft)

High Accuracy Power Accessories

PSN50	High Accuracy Power Sensor, 50 MHz to 6 GHz
MA24104A	Inline High Power Sensor, 600 MHz to 4 GHz
40-168-R	AC-DC Adapter
800-441	Serial Interface Cable
3-1010-122	Attenuator, 20 dB, 5 W, DC to 12.4 GHz, N(m)-N(f)
1010-127-R	Attenuator, 30 dB, 150 W, DC to 3 GHz, N(m)-N(f)
3-1010-123	Attenuator, 30 dB, 50 W, DC to 8.5 GHz, N(m)-N(f)
3-1010-124	Attenuator, 40 dB, 100 W, DC to 8.5 GHz, N(m)-N(f), Uni-directional
1010-128-R	Attenuator, 40 dB, 150 W, DC to 3 GHz, N(m)-N(f)
65701	3 GHz Offset Cal Kit consisting of one each: 3-1010-119, 10 dB Attenuator, DC to 6 GHz, 2 W, 3-806-151, 4 GHz Cable, 18" (46 cm)

Literature Manuals

10580-00097	User Guide
10580-00098	Programming Manual

Ordering Information (Continued)

Power Monitor - Detectors

Model	Frequency Range	Impedance	Return Loss	Input Connector	Frequency Response
5400-71N50	0.001 to 3 GHz	50 Ω	26 dB	N(m)	± 0.2 dB, <1 GHz ± 0.3 dB, <3 GHz
5400-71N75	0.001 to 3 GHz	75 Ω	26 dB, <2 GHz 20 dB, <3 GHz	N(m)	± 0.2 dB, <1 GHz ± 0.5 dB, <3 GHz
560-7N50B	0.01 to 20 GHz	50 Ω	15 dB, <0.04 GHz 22 dB, <8 GHz 17 dB, <18 GHz 14 dB, <20 GHz	N(m)	± 0.5 dB, <18 GHz ± 1.25 dB, <20 GHz
560-7S50B	0.01 to 20 GHz	50 Ω	15 dB, <0.04 GHz 22 dB, <8 GHz 17 dB, <18 GHz 14 dB, <20 GHz	WSMA(m)	± 0.5 dB, <18 GHz ± 1.25 dB, <20 GHz
560-7K50	0.01 to 40 GHz	50 Ω	12 dB, <0.04 GHz 22 dB, <8 GHz 17 dB, <18 GHz 15 dB, <26.5 GHz 14 dB, <32 GHz 13 dB, <40 GHz	K(m)	± 0.5 dB, <18 GHz ± 1.25 dB, <26.5 GHz ± 2.2 dB, <32 GHz ± 2.5 dB, <40 GHz
560-7VA50	0.01 to 50 GHz	50 Ω	12 dB, <0.04 GHz 19 dB, <20 GHz 15 dB, <40 GHz 10 dB, <50 GHz	V(m)	± 0.8 dB, <20 GHz ± 2.5 dB, <40 GHz ± 3.0 dB, <50 GHz



Anritsu Corporation

5-1-1 Onna, Atsugi-shi, Kanagawa, 243-8555 Japan
Phone: +81-46-223-1111
Fax: +81-46-296-1264

• U.S.A.

Anritsu Company

1155 East Collins Boulevard, Suite 100,
Richardson, Texas 75081 U.S.A.
Toll Free: 1-800-ANRITSU (267-4878)
Phone: +1-972-644-1777
Fax: +1-972-671-1877

• Canada

Anritsu Electronics Ltd.

700 Silver Seven Road, Suite 120, Kanata,
Ontario K2V 1C3, Canada
Phone: +1-613-591-2003
Fax: +1-613-591-1006

• Brazil

Anritsu Eletrônica Ltda.

Praca Amadeu Amaral, 27-1 Andar
01327-010 - Paraisópolis, São Paulo, Brazil
Phone: +55-11-3283-2511
Fax: +55-11-3886940

• Mexico

Anritsu Company, S.A. de C.V.
Av. Ejército Nacional No. 579 Piso 9, Col. Granada
11520 México, D.F., México
Phone: +52-55-1101-2370
Fax: +52-55-5254-3147

• U.K.

Anritsu EMEA Ltd.

200 Capability Green, Luton, Bedfordshire LU1 3LU, U.K.
Phone: +44-1582-433280
Fax: +44-1582-731303

• France

Anritsu S.A.

16/18 Avenue du Québec-SILIC 720
91961 COURTABOEUF CEDEX, France
Phone: +33-1-60-92-15-50
Fax: +33-1-64-46-10-65

• Germany

Anritsu GmbH

Nemetschek Haus, Konrad-Zuse-Platz 1
81829 München, Germany
Phone: +49 (0) 89 442308-0
Fax: +49 (0) 89 442308-55

• Italy

Anritsu S.p.A.

Via Elio Vittorini, 129, 00144 Roma, Italy
Phone: +39-06-509-9711
Fax: +39-06-502-2425

• Sweden

Anritsu AB

Borgafjordsgatan 13, 164 40 Kista, Sweden
Phone: +46-8-534-707-00
Fax: +46-8-534-707-30

• Finland

Anritsu AB

Teknobulevardi 3-5, FI-01530 Vantaa, Finland
Phone: +358-20-741-8100
Fax: +358-20-741-8111

• Denmark

Anritsu A/S

Kirkebjerg Allé 90 DK-2605 Brøndby, Denmark
Phone: +45-72112200
Fax: +45-72112210

• Spain

Anritsu EMEA Ltd.

Oficina de Representación en España

Edificio Veganova
Avda de la Vega, nº 1 (edf 8, pl1, of 8)
28108 ALCOBENDAS - Madrid, Spain
Phone: +34-914905761
Fax: +34-914905762

• Russia

Anritsu EMEA Ltd.

Representation Office in Russia

Tverskaya str. 16/2, bld. 1, 7th floor.
Russia, 125009, Moscow
Phone: +7-495-363-1694
Fax: +7-495-935-8962

• United Arab Emirates

Anritsu EMEA Ltd.

Dubai Liaison Office

P O Box 500413 - Dubai Internet City
Al Thuraya Building, Tower 1, Suite 701, 7th Floor
Dubai, United Arab Emirates
Phone: +971-4-3670352
Fax: +971-4-3688460

• Singapore

Anritsu Pte. Ltd.

60 Alexandra Terrace, #02-08, The Comtech (Lobby A)
Singapore 118502
Phone: +65-6282-2400
Fax: +65-6282-2533

• India

Anritsu Pte. Ltd.

India Branch Office

3rd Floor, Shri Lakshminarayan Niwas,
#2726, 80 ft Road, HAL 3rd Stage, Bangalore - 560 075, India
Phone: +91-80-4058-1300
Fax: +91-80-4058-1301

• P. R. China (Hong Kong)

Anritsu Company Ltd.

Units 4 & 5, 28th Floor, Greenfield Tower, Concordia Plaza,
No. 1 Science Museum Road, Tsim Sha Tsui East,
Kowloon, Hong Kong, P.R. China
Phone: +852-2301-4980
Fax: +852-2301-3545

• P. R. China (Beijing)

Anritsu Company Ltd.

Beijing Representative Office

Room 2008, Beijing Fortune Building,
No. 5, Dong-San-Huan Bei Road,
Chao-Yang District, Beijing 100004, P.R. China
Phone: +86-10-6590-9230
Fax: +86-10-6590-9235

• Korea

Anritsu Corporation, Ltd.

8F Hyunju Bldg. 832-41, Yeoksam-Dong,
Kangnam-ku, Seoul, 135-080, Korea
Phone: +82-2-553-6603
Fax: +82-2-553-6604

• Australia

Anritsu Pty Ltd.

Unit 21/270 Ferntree Gully Road, Notting Hill
Victoria, 3168, Australia
Phone: +61-3-9558-8177
Fax: +61-3-9558-8255

• Taiwan

Anritsu Company Inc.

7F, No. 316, Sec. 1, Neihu Rd., Taipei 114, Taiwan
Phone: +886-2-8751-1816
Fax: +886-2-8751-1817

Please Contact:

