COM3010 Communications Service Monitor





VALUE PACKED BUILT-IN FEATURES!

- ✓ 100kHz to 1.0GHz, Full Duplex!
- **✓**Built-in Power Meter & Dummy Load!
- **✓** Built-In Frequency Counter!
- **✓**Built-In Sweep Generator!
- **✓**Built-In SINAD Meter!
- **✓** Built-In Calibrated RSSI Meter!
- **✓**Built-In RS232 Control
- **✓** Built-In Lithium Ion Battery Pack

Full Duplex, Loaded With Features...At A Sensible Price!

THE HISTORY

In 1986 we introduced the COM3 Communications Service Monitor. Rivaling the performance and features of communications service monitors selling for \$10K and more, the COM3 broke the \$2,000 price barrier! For the very first time Ramsey Electronics made it economically possible for every service vehicle to have their own service monitor! From 1986 until 2003 the Ramsey COM3 became THE STANDARD for low cost, performance packed service monitors with over 5,000 of them put into operation throughout the 2-way radio, pager, and other communications industries.

That legacy continues today with the Ramsey COM3010. The COM3010 is our brand new, full duplex service monitor designed from the ground up to give you the best features available at a price that can't be beat! We asked the owners of those 5,000 COM3's what they would like to see in a brand new Service Monitor. We took a long hard look at the competitive units available and came up with the best of both worlds! Some of the greatest features available in a service monitor today, at a fraction of the cost of competitive units!

THE RIGHT CHOICE!

The COM3010 is a full featured communications service monitor engineered and designed to provide highly accurate measurement and monitoring of communications equipment from 100kHz to 1.0GHz with 0.1ppm accuracy. Full duplex design enables independent and separate measurement and testing of transmitter and receiver circuits simultaneously making it the ideal service monitor for the radio technology of today...and tomorrow! All functions are selected with simple commands and selections on the Elastomeric touch keypad and are displayed on high contrast dual vacuum fluorescent graphical displays. And of course, battery operation is standard to make field use a breeze!

BUILT-IN POWER METER

Perfect for the two way radio user. Simply key the transmitter while the radio is connected to the generator output for an instantaneous reading of RF output power in either watts or dBm. Yes, we said key the radio into the generator output! The COM3010 incorporates automatic reverse power protection rated at 100 watts with a built-in dummy load. No more burned up pads, no separate wattmeter, and no more worries.

BUILT-IN FREQUENCY COUNTER

Not sure of the radio frequency? Don't want to plug it into a programmer to interrogate the memory? Even worse, don't want to take it apart to look at the channel elements or crystals? No problem, just key the transmitter. The built-in frequency counter will display the frequency! RF counter range is 100kHz to 1.0GHz!

SELF CALIBRATING RSSI METER

A calibrated Receive Signal Strength Indicator meter makes the COM3010 perfect for testing filter designs and performance as well as cable characteristics. Such tests are made simple with the availability of user memories. 100 groups of 100 memories allow the storage of a large number of test setups for quick and easy retrieval.

RECEIVER SINAD METER

Working on a receiver? Check the true SINAD sensitivity of the receiver with the built-in SINAD meter. Also provides audio loop-back for the equipment being tested. A separate SINAD meter is no longer required.

AM/FM MODULATION

The COM3010 receives and displays both AM and FM modulation for transmitter testing. The signal generator generates both AM and FM modulation with both internal and external sources. The built-in audio generator provides .1Hz to 3kHz test tones, as well as both CTS and DPL encode tones.

BATTERY OPERATION

One long-life Li-Ion battery pack is included to provide over one hour of operation. Two additional battery packs can be easily plugged into the rear compartment to triple the battery life.



COM3010 Service Monitor DETAILED SPECIFICATIONS

FEATURES

Display:

2 vacuum fluorescent graphical displays, 16x140 pixels

Memories:

Sweep Features:

Scanner Mode:

SINAD Meter:

IF Freq. Counter:

2 vacuum fluorescent graphical displays, 16x140 pixels

100 sequences of 100 registers plus system memories

Linear, octave, and decade of up to 10,000 points

Allows scanning through a sequence of 100 stores

Displays reading from -40dB to 0dB of SINAD

Measures frequency error to 1Hz in three counter modes

Battery Meter: Displays charge left in batteries

Reverse Protection:

Generator output protected, switches into 100W internal load and automatically displays power in dBm or watts.

Attenuator Output:

RSSI Meter:

90dB of range on receiver side, -30dBm to -120dBm

Warranty:

One-year parts and labor with extended Ramsey Technica

One-year parts and labor with extended Ramsey Technical Support and dedicated COM3010 user forum access

GENERATE MODE

Frequency: 100kHz to 1.0GHz in 1Hz steps Freq. Accuracy: \pm 0.1 ppm standard

RF Output Level: -140dBm to 0dBm in 0.1dBm steps

Level Accuracy: ± 0.5dB, 500kHz to 1GHz, ±2dB 100kHz to 500kHz
Units: dBm. uV. mV

Leakage: Better than 1uV, 2 turn loop, 1" diameter at 1"

Spurious Harmonics: Less than -30dBc above 1MHz

Non-harmonics: -50dBc typical

FM Modulation: ± 75kHz max in 0.1Hz steps

FM Bandwidth: 0.1Hz - 75kHz

Accuracy: ± 0.1ppm (inherently tied to reference frequency)
AM Modulation: 0 - 75% in 1% steps to -100dBm, 0-50% to -140dBm

AM Bandwidth: 10Hz - 10kHz
Accuracy: ± 5%
Distortion: Less than 5%
Modulation Internal: 0.1Hz - 3 kHz

Modulation External: 0.1Hz - 3 kHz digital and analog selectable, auto leveling. CTS Encode: 0.1Hz to 999.9Hz at ±.75kHz default deviation, variable

from .1Hz to 2kHz deviation
DPL Encode: ±500Hz, all supported codes

RECEIVE MODE

Frequency: 100kHz to 1.0GHz in 10Hz steps

Sensitivity: Less than 1uV FM Demod: 0 - 7 kHz, 0 - 4kHz

AM Demod: 0-100%

CTS Decode: In AF frequency count

Frequency Error: 0-1MHz, two methods of bargraph and count

AF Demod output: 1Vp-p for 7kHz deviation Gates: 0.1 sec, 1 sec

FREQUENCY COUNTER

Low Range: 100kHz - 70MHz

Sensitivity less than 5mV under 50MHz, less than 10mV

above 50MHz, 1Hz and 10Hz resolutions

High Range: 70MHz - 1GHz

Sensitivity less than 10mV 70MHz to 200MHz, less than 6mV above 200MHz to 1.0GHz, 10Hz and 100Hz

resolutions with divide by ten prescaler

IF Frequency: Receiver sensitivity, range limited to bandwidth of current

set receiver frequency $\pm 10 \text{kHz}$, 1Hz, and 10Hz resolutions

AUDIO COUNTER

Frequency Range: 1Hz-3000Hz

Gates: 10 Sec variable gate for 1 sec quick updates Sensitivity: 10mV at demod audio, (± 30Hz deviation)

GENERAL

Receiver input: Has diode protection and fused components

Controls: Elastomeric keypad

Dummy Load: 100W 30dB feed-through attenuator with sample port on

rear, 25% duty cycle full power

RS232 Control: Serial interface provides external function control and

automated calibration

Primary power: 100-240VAC, .6A, 50/60 Hz; built in Li-lon battery

Stand: Bottom mounted tilt-bail stand included

Case Color: Mist gray epoxy powder coat

Supplied Accessories: 110VAC EIA cord, BNC-BNC test cable, whip antenna, one

BP3010 Li-Ion battery

Dimensions: 6" H x 11.9375" W x 14.75" D (152.4mm H x 303.31mm

W x 374.65mm D)

Weight: 14 lbs (6.5kg)

COM3010 BP3010 CC3010 Full Duplex Communications Service Monitor, 100kHz - 1.0GHz, includes One 1-Hour Li-Ion Battery Pack
Additional Li-Ion Battery Pack, Extends Battery Operation By One Hour (Maximum 3 Packs)

Matching Black Padded Cordura Carrying Case With Strap

\$4795.00
\$59.95
Matching Black Padded Cordura Carrying Case With Strap

Visit us at www.ramseytest.com or call our wireless specialists at 800-446-2295 for details!



Test Equipment Solutions for the Wireless Industry

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