COM3010 Communications Service Monitor

THE VALUE PACKED SERVICE MONITOR WITH BUILT-IN PERFORMANCE!

- ✔ 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 Packs

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

Lease It For As Low As $89/Month! Call for details

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! The COM3010 provides some of the greatest features available in a service monitor today, at a fraction of the cost of the competition.

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. For those on-site measurements, all graphical displays can be "zoomed" to full size to see them across the room! 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! 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.

HAND HELD SCOPE OPTION

Sure you can see the zoomed mode displays across the room, but some people just want a scope display. We took the novel approach that simply made sense...do you want to spend a lot for a service monitor with a scope or do you want to spend a little for a service monitor with a scope? Plug in the optional 10MHz hand held scope directly to the monitor port on the COM3010 and there's your scope! Perfect to check for distortion, noise and audio quality. Oh, by the way, it's portable, can be used as a stand-alone scope with direct DVM readouts for dBm, dBV, DC, and True RMS! Sounds pretty logical doesn't it! Especially at a transmitter site where you may need a separate scope!

FEATURES

Display:	2 vacuum fluorescent graphical displays, 16x140 pixels
Memories:	100 sequences of 100 registers plus system memories
Sweep Features:	Linear, octave, and decade of up to 10,000 points
Scanner Mode:	Allows scanning through a sequence of 100 stores
SINAD Meter:	Displays reading from -30dB to 0dB of SINAD
Freq. Counter:	Measures frequency error to 1 Hz 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.
Power Meter:	Displays power from +23dBm to +50dBm, ± .5dB (200mW-100W)
Attenuator Output:	-30dB sample port from load for external equipment
RSSI Meter:	80dB of range on receiver side, -40dBm to -120dBm
Warranty:	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:	± 0.1ppm standard
RF Output Level:	-140dBm to 0dBm in 0.1dBm steps
Level Accuracy:	± 1dB, 500kHz to 1GHz, ±2dB 100kHz to 500kHz
Units:	dBm, uV, mV
Leakage:	Better than 1uV, 2 turn loop, 1" diameter at 1"
Spurious Harmonics:	-30dBc typical
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 - 3kHz
Modulation External:	0.1Hz - 3kHz 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:	±750Hz, all supported codes

RECEIVE MODE

Frequency:	100kHz to 1.0GHz in 10Hz steps
Sensitivity:	Less than 2uV below 512MHz Less than 3uV above 512MHz
FM Demod:	0 - 7kHz, 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

Frequency Range:	100kHz - 1GHz
Low Band Sensitivity:	Less than 10mV under 70MHz, 1Hz and 10Hz resolutions
High Band Sensitivity:	Less than 10mV, 70MHz - 1GHz, 10Hz and 100Hz resolutions with divide by ten prescaler
IF Frequency:	Receiver sensitivity, range limited to bandwidth of current set receiver frequency ±10kHz, 1Hz, and 10Hz resolutions

AUDIO COUNTER

Frequency Range:	60Hz - 3000Hz
Gates:	10 Sec variable gate for 1 sec quick updates
Sensitivity:	35mV at demod audio, (± 750Hz 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, 50/60Hz; built in Li-Ion 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)

HAND-HELD SCOPE OPTION

Max Sample Rate:	10MHz (2MHz single shot)
Max Input Bandwidth:	2MHz (-3dB at 50mV, 1V & 20V/Div x 1 setting)
Input Impedance:	1M ohm, 20pf standard scope probes
Input Coupling:	DC, AC, and ground (zero reference)
Vert Resolution:	8 bit, ±1 bit linearity
Trigger Modes:	Run, normal, once, roll mode for 1s/div and slower timebase
LCD Graphics:	64 x 128 pixel, white backlit
Signal Storage:	256 samples with 2 memories, max 125 visible samples, 256 using X shift
dBm Measurement:	-73dB to +40dB, ±0.5dB accuracy (0dBm=0.775V at 600 ohm)
dBV Measurement:	-75dB to +38dB, ±0.5dB accuracy (0dBV=1V)
True RMS Measurement:	.1mV to 80V, ±2.5% accuracy
P/P AC Range:	0.1mV to 160V, ±2.0% accuracy
Timebase Ranges:	0.2us to 1hr/div, 32 steps
Input Sensitivity Range:	5mV to 20V/div at time 1, 50mV to 200V/div at times 10, 12 steps
Probe Calibration Output:	2KHz/5Vpp approx
Power Requirement:	9V, 500mA adapter provided
Batteries: (not included)	5 AA Alkaline batteries or 5 AA NiMH rechargable batteries
Battery Life:	Up to 20 hours with AA Alkaline
Operating Temperature:	0° to 50° C (32° to 122° F)
Dimensions:	4.13" x 7.95" x 1.38" (105mm x 220mm x 35mm)
Weight:	14 oz (395g) less batteries
Accessories Provided:	Foam lined carrying case, COM3010 interface cable, standard scope probes, AC power supply, user's manual

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

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