iQA Series

Portable Passive Intermodulation Analyzer

Passive Intermodulation (PIM) Analyzer, Range to Fault (RTF) enabled

The iQA series Passive Intermodulation (PIM) analyzer is a feature rich, high power PIM test solution. This field proven analyzer enables network operators to improve site performance by finding and eliminating sources of passive intermodulation in the RF path. The design includes an integrated panel PC with intuitive touch screen interface for performing tests and generating site reports.

This version of the iQA ships from the factory enabled to support Range to Fault (RTF) technology: with the purchase of an optional RTF module, operators are able to activate RTF mode within the iQA user software to accurately measure the distance to return loss faults as well as the distance to PIM faults at the cell site.

RTF module sold separately.

SUMMITEK ADVANTAGE

PRODUCT FEATURES

- Rugged, reliable construction suitable for field use
- Integrated polycarbonate transit case
- Range to Fault (RTF) enabled
- Fully configurable frequencies, powers and IM products
- Simple to operate touch screen interface
- Spectrum monitor, frequency sweep and time trace modes

TECHNICAL SPECIFICATIONS |

SYSTEM

Measurement method	Reverse (reflected) PIM, 3rd, 5th, 7th, 9th and 11th order
Residual PIM	< -115dBm/-158dBc max (<-125dBm/-168dBc typ) (x2 @ 43dBm)
User interface ports	3x USB, x1 LAN, 1x RF output (7-16 DIN female), 1x monitor port (N female)
Display	8.4in (213mm) touch screen display

TRANSMITTER

Transmit frequencies	See model table
Frequency increment	100 kHz
Frequency accuracy	± 5ppm (max), aging ± 1ppm (max) after first year
Power per tone (adjustable)	32mW to 20W, +15 to +43dBm (iQA-2600C +33 to +43dBm)
Power accuracy (per tone)	± 0.5dB (max)

RECEIVER

Receive band (100kHz steps)	See model table
Measurement noise floor	< -128dBm
Measurement range	-50dBm to -128dBm

TECHNICAL SPECIFICATIONS CONTINUED |

ELECTRICAL

Mains power	115-230V, 50/60Hz AC
Power consumption	650W

MECHANICAL

Dimensions	19 x 18 x 12in (500 x 457 x 305mm)
Weight	< 50lbs (22.7kg)
Cooling	Forced air

ENVIRONMENTAL

Operating temperature range	-10°C to +40°C
Storage temperature range	-20°C to +60°C
Ingress protection (IP)	IP20 (with lid open) IP21 (with lid closed)
Relative humidity	5% to 95% RH non-condensing
Mechanical shock	40G shock rating

MODELS |

	DESCRIPTION	TX RANGE	RX RANGE (PIM)	RTF MODULE #
iQA-0700LC	700MHz (low)	728-746MHz	698-716MHz	RTF-1000A
iQA-0700HC	700MHz (high)	728-757MHz	776-787MHz	RTF-1000A
iQA-0790C	LTE800	791-821MHz	832-862MHz	RTF-1000A
iQA-0850C	850MHz	869-894MHz	824-849MHz	RTF-1000A
iQA-0900C	GSM900	935-960MHz	890-915MHz	RTF-1000A
iQA-0901C	EGSM900	925-960MHz	880-915MHz	RTF-1000A
iQA-1800C	DCS1800	1805-1880MHz	1710-1785MHz	RTF-2000A
iQA-1921C	Dual band PCS/AWS	1930-1990MHz/2110-2155MHz	1710-1755MHz/1850-1910MHz	RTF-2000A
iQA-2101C	UMTS (3rd & 7th order)	2110-2170MHz	1920-2080MHz	RTF-2000A
iQA-2600C	2600LTE	2620-2690MHz	2500-2570MHz	RTF-2600A

iQA with optional RTF module

Self contained, ruggedized transport case.

*Range to Fault is an optional accessory available for iQA test instruments which enables users to measure distance to return loss faults as well as distance to PIM faults. The RTF module is sold separately.

WARNING: Use of the portable PIM analyzer in a radiating mode, for example when connected to an antenna not enclosed in an anechoic environment, may be a violation of licensing regulations. Users should have permission in advance, from any licensed operators that might be affected by these tests. Furthermore, radiating high RF power can pose a personnel risk.

Specifications subject to change without notice.