iTA Series

Battery Portable Twinband Passive Intermodulation Analyzer

The iTA Series Passive Intermodulation (PIM) analyzer is the first multi-band battery powered PIM Test Analyzer versatile enough to support multiple test scenarios such as testing at the top of the tower, base of tower, roof top and in-building for DAS systems. This IEC compliant 20W, rugged, battery operated design includes a tablet computer in a ruggedized case for remote control. This allows hands-free dynamic testing that is safe and convenient. Add the optional Range to Fault (RTF) module to quickly identify the location of PIM and Return Loss sources.

Evolved from a design legacy of field proven analyzers, this PIM Analyzer enables network operators to improve site performance by finding and eliminating sources of passive intermodulation at the cell site. An intuitive touch screen interface is also available for local control, performing tests and quickly generating site reports.

PRODUCT FEATURES

- Multi cellular band testing in one instrument
- Fully configurable frequencies, powers and IM products
- 7 inch tablet computer included for remote control of device
- Simple to operate touch screen interface
- Extensive combined band reporting capabilities
- Spectrum monitor, frequency sweep and time trace modes
- RTF compatible
- Battery powered

TECHNICAL SPECIFICATIONS

SYSTEM

Measurement method	Reverse (reflected) PIM, 3rd & 5th order. (7th & 9th order in applicable bands)
Residual PIM	< -117dBm/-160dBc max (<-125dBm/-168dBc typ)
Interface ports	2x RF output (7-16 DIN female), 1x USB 2.0 Host, 1x USB 2.0 Slave, 1x SD, 2x monitor port (SMB female), 1x SMA-RP (Wi-Fi external antenna)
User interface	Local - touch screen display 4.3in (109mm) Remote - tablet computer (included), any Wi-Fi enabled user device with Web browser
Return loss alarm	Automatic detection and shut down when high RL is detected

TRANSMITTER

Transmit frequencies	See model table
Frequency increment	100kHz
Frequency accuracy	± 5ppm (max), aging ± 1ppm (max) after first year
Power per tone (adjustable)	+0.1 to 20W (+20 to +43dBm in 1dB increments)
Power accuracy (per tone)	± 0.5dB (max)

TECHNICAL SPECIFICATIONS CONTINUED

RECEIVER

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

ELECTRICAL

Battery power	25.9 VDC, 2600 mAh, 67Wh Lithium Ion battery pack (removable)
Battery operating time	Depends on usage, 2 hr min. per battery pack
Battery charger	Output: 29.4 VDC, 1.2 Amp

MECHANICAL

Dimensions/ Weight	14.5 x 12.2 x 9.8in (369 x 310 x 250mm)/ < 49.2lbs (22.3kg)

ENVIRONMENTAL

Operating temperature range	+14°F to +113°F (-10°C to +45°C)
Storage temperature range	+14°F to +140°F (-10°C to +60°C)
Ingress protection (IP)	IP54. IP67 when enclosed in optional hard case
Relative humidity	5% to 95% RH non-condensing
Mechanical shock	40G shock rating

MODELS

Note: Unique Kaelus iTA models can be purchased based on any iPA model pairs. Contact your local Kaelus Sales representative.

	DESCRIPTION	TX1 RANGE	TX2 RANGE	RX RANGE (PIM)	RTF MODULE
iTA-7991A	LTE 800	791-796MHz	808-821MHz	832-862MHz	RTF-1000A
	GSM900	932.5-937.5MHz	949-960MHz	903-915MHz	
iTA-0818A	850MHz	869MHz	879-894MHz	824-849MHz	RTF-1000A
	DCS1800	1805-1812MHz	1825-1880MHz	1710-1785MHz	RTF-2000A
iTA-9118A	EGSM900	925-935MHz	945-960MHz	880-915MHz	RTF-1000A
	DCS1800	1805-1812MHz	1825-1880MHz	1710-1785MHz	RTF-2000A
iTA-7719A	700MHz LOW/HIGH	728-731.5MHz	741-764MHz	698-716MHz; 776-802MHz	RTF-1000A
	PCS	1930-1950MHz	1970-1990MHz	1850-1910MHz	RTF-2000A
	AWS	1930-1950MHz	2110-2155MHz	1710-1755MHz	
iTA-0819A	850MHz	869MHz	879-894MHz	824-849MHz	RTF-1000A
	PCS	1930-1950MHz	1970-1990MHz	1850-1910MHz	RTF-2000A
	AWS	1930-1950MHz	2110-2155MHz	1710-1755MHz	
iTA-9121A	EGSM900	925-935MHz	945-960MHz	880-915MHz	RTF-1000A
	UMTS2100	2110-2130MHz	2150-2170MHz	1920-1980MHz; 2050-2090MHz	RTF-2000A
iTA-9126A	EGSM900	925-935MHz	945-960MHz	880-915MHz	RTF-1000A
	LTE 2600	2620-2630MHz	2650-2690MHz	2500-2570MHz	RTF-2000A

Specifications subject to change without notice.