kʌelus

IPA-0707D

BATTERY PORTABLE PASSIVE INTERMODULATION ANALYZER

The iPA Series Passive Intermodulation (PIM) analyzer is the first 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 40W, rugged, battery operated design can be operated via remote control with any WiFi enabled phone, tablet or laptop computer. 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.

FEATURES

- Rugged and reliable; designed with tower climbers in mind
- Fully configurable frequencies, powers and IM products
- Remote control possible with handheld device, eg tablet, cell phone
- Simple to operate touch screen interface
- Extensive reporting capabilities
- Spectrum monitor, frequency sweep and time trace modes
- RTF compatible
- Battery powered
- D Series +46dBm (40W) Output Power

TECHNICAL SPECIFICATIONS

SYSTEM	
Measurement method	Reverse (reflected) PIM, 3rd and 5th order.
Residual PIM	< -117dBm/-160dBc maximum (<-125dBm/-168dBc typical) at 2 x 20W
Interface ports	1x RF output (7-16 DIN female), 1x USB 2.0 Host, 1x USB 2.0 Slave, 1x SD 1x monitor port (SMB female), 1x SMA-RP (Wi-Fi external antenna)
User interface	Local - touch screen display 4.3in (109mm) Remote - tablet, computer, 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 maximum, aging ± 1ppm maximum after first year
Power per tone (adjustable)	D series Models 1 to 40W (+30 to +46dBm in 1dB increments)
Power accuracy (per tone)	± 0.5dB maximum

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 packs (removable)
Battery operating time	Depends on usage, 2 hr minimum per battery pack
Battery charger	Output: 29.4 VDC, 1.2 Amp

MECHANICAL	
Dimensions H x D x W	369 x 160 x 240mm	14.5 x 6.3 x 9.4in
Weight	12kg	26lbs

ENVIRONMENTAL	
Temperature range	-10ºC to +45ºC | +14°F to +113°F
Ingress protection	IP54. IP67 when enclosed in optional hard case
Operational humidity	5% to 95% RH non-condensing
Storage temperature range	-10°C to +60°C | +14°F to +140°F
Mechanical shock	40G shock rating

ORDERING INFORMATION

MODELS					
	DESCRIPTION	TX1 RANGE	TX2 RANGE	RX RANGE (PIM)	RTF MODULE *
iPA-0707D	700MHz LOW/HIGH	728-731.5 MHz	741-764MHz	698-716MHz 776-802MHz	RTF-1000
Notes	Specifications subject to change without notice.				
1.	*Range to Fault is an optional accessory available for iPA 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.				
2.	Dual Battery charger for standalone charging 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 obtain permission in advance from any licensed operators that might be affected by these tests. Furthermore, radiating high RF power can pose a personnel risk.				

ACCESSORIES

ORDERING INFORMATION	
ACE-1000A **Highly recommended accessory**	PIM Instrument self-calibration tool
RTF	Range To Fault PIM and Return Loss fault location tool (Refer ordering table for model details)
iAK-0060A	Portable PIM Accessory Kit

iPA Rugged hoist position

iPA shown with iAK-0600A ruggedized trans port case with full PIM testing accessories

PIM Instrument self-calibration tool

iPA shown with RTF PIM and Return Loss fault location tool