

IWA SERIES

CABLE AND ANTENNA ANALYZER

The iWA series Cable & Antenna Analyzer is the evolution of our well respected and very reliable iVA platform. The iWA extended frequency range to 4GHz supports Land Mobile Radio (LMR) and 5G midband networks while enabling users to accurately measure and locate VSWR/return loss faults in their RF infrastructure. In addition, the Bluetooth wireless connectivity allows unprecedented measurement flexibility. The iWA is an ergonomically designed, rugged battery operated module that is remotely controlled with any tablet, smartphone or laptop computer.



FEATURES

- Redefining site certification sweep testing, dramatically reducing test time on site
- Simple to operate, highly intuitive software user interface with the unique ability to generate and complete the test report onsite with no post-processing or additional data entry required
- Kaelus Unify software available for Android, iOS and Windows allows Kaelus iPA(s) and iWA(s) to combine your RL data with your PIM data into a single report.
- Geotag each test point, insert a Google Maps® snapshot directly into the report
- Instrument controlled via robust Bluetooth connection.
- Connect directly to the device under test; eliminates the need for a phase stable cable in most cases

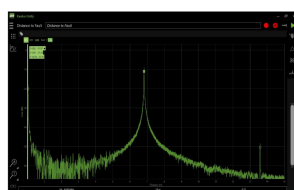
TECHNICAL SPECIFICATIONS

KEY SPECIFICATIONS	
	iWA-0140
iWA analysis modes	Return loss, VSWR, Cable loss, Distance-to-fault (DTF)
Frequency range - Return Loss	54MHz - 4100MHz
Minimum frequency increment	1kHz
Number of measurement points	1 to 4047
ELECTRICAL - DC POWER CONSUMPTION	
Return loss mode	6W
Standby (Idle)	0.6W
Battery	Lithium-Ion 3.6V, 2350 mAh, 8.5Wh
Battery charging method	USB-compatible power source connected to USB port of iWA
Battery operating time	7.5 Hours at typical usage factor

IWA ANALYSIS MODE - RETURN LOSS	
Sweep speed	12ms per frequency point
RF Output power	0dBm max
Return loss dynamic range	40dB
Cable loss measurement range*	0 - 20dB
Return loss measurement accuracy	Applies over the temperature range -10°C to +45°C, with less than 5°C deviation from calibration temperature.
0 - 10dB	± 0.4dB
10 - 20dB	± 0.6dB
20 - 30dB	± 1.5dB
30 - 40dB	± 4.0dB
Interference immunity	+10dBm at 500kHz offset from stimulus frequency
System impedance	50ohms
(*) Cable loss can be measured as a 1-port measurement, with the far end of the cable terminated in an open or short circuit. 20dB capability requires ideal connector return loss.	



Return Loss Trace



DTF Trace



INSTRUMENT CONTROL	
User interface	USB or Bluetooth supported user device with iWA application software installed
Supported Devices	Tablet (iOS & Android) Smartphone (iOS & Android) PC, Windows 10 or higher
Communications interface to iWA	Bluetooth and USB 2.0
Bluetooth antenna	Integrated into housing

MECHANICAL	
Dimensions H x D x W	52 x 69.5 x 216mm 2.06 x 2.73 x 8.51in
Weight	0.7kg 1.54 lbs
Connector 1	RF test port iWA-0140A: Type N male, 50 ohms iWA-0140B: 4.3-10 male, 50 ohms
Connector 2	USB 2.0 Mini-B (for charging and connection to iPA or PC)
Mechanical Shock & Vibration	MIL-PRF-28800F Class 2, ETS 300 019-2-1, -2, -7

ENVIRONMENTAL	
Temperature range	-10°C to +55°C +14°F to +131°F (operational)
Ingress protection	IP54
Altitude	4600m 15,000ft maximum
Compliance	CE, FCC, RCM, RoHS
Operational humidity	5% to 95% RH non-condensing
Storage temperature range	-20°C to +60°C -4°F to +140°F

ORDERING INFORMATION

MODEL	DESCRIPTION
iWA-0140A-NC	iWA Cable & Antenna Analyzer System, Type N male connector with Neoprene Soft Case
iWA-0140A-HC	iWA Cable & Antenna Analyzer System, Type N male connector with Hard Case
iWA-0140A-BK	iWA Cable & Antenna Analyzer System, Type N male connector with Basic Accessory Kit
iWA-0140A-SK-02	iWA Cable & Antenna Analyzer System, Type N male connector with Standard Accessory Kit
Note: Change A to B for 4.3-10 Connector	Eg. iWA-0140B-NC. iWA Cable & Antenna Analyzer System, 4.3-10 male connector with Neoprene Soft Case

MECHANICAL INTERFACE

