PiMPro

- Real world 40 W × 2 radio power levels with -140 dBm sensitivity
- Ultra-portable in a convenient and durable backpack enclosure and with over three hours of battery life
- Simultaneous Real Time PIM & Return Loss measurements
- Automatic GPS site location feature
- Distributed antenna system (DAS) test feature
- New Distance to Fault feature allows for simultaneous view of PiMPoint and Distance to Fault impedance reflections on the same graph
- Cable Loss measurement capability
- Fully integrated Wi-Fi remote control using Android tablet
- Instantaneous Measurement Modes for PIM and Return Loss, Frequency Sweep and PIM vs Time
- Variable output power from 17 to 46 dBm x 2 (50mW to 40W x 2)
- Measures the 3rd and 5th reflective passive intermodulation
- Internal and external data storage
- Ability for multiple users to view measurement data in various formats on separate tablets
- IP54 Ingress Rated
- Powerful and User-Freindly Report Generator and Editor

Overview

CCI's PIMPro Smart Series represents a third-generation family of PIM Analyzers incorporating in-house amplifier and filter design expertise. This new Smart Series is made up of models covering all popular global wireless bands, with some models covering two bands in one instrument. This IP54 rated instrument is controlled via a companion Android tablet using 802.11 Wi-Fi technology. Intended for rugged field usage in either indoor, outdoor or rooftop environments with a battery capacity of over two hours of TX testing. The fully integrated Distance to PIM (PIMPoint) and Distance to Fault features make field carry and measurement setup quick and simple. Site reports are flexible, intuitive and can be sent via email. Spare batteries can be taken along for all day measurement sessions and quickly swapped without losing important report information.

SPECIFICATIONS

Electrical/Mechanical Specifications

Model	Band	Transmit (TX1) MHz	Transmit (TX2) MHz	Receive (RX1) MHz	Receive (RX2) MHz
PiMPro Smart 700	LTE 700	745.6 – 769.4	732.6 – 734.4	698 – 722	780 – 798
PiMPro Smart 700A	APT 700	758 – 776	788 – 807	703 – 748	825 – 845
PiMPro Smart 7080	GLOBAL 700A/EURO 800	783 - 810	758, 821 FIXED	728 - 733	832 - 851
PiMPro Smart 800	LTE 800	811 – 821	791 – 795	832 – 862	
PiMPro Smart 850	Cellular 850	864 – 871	881.6 – 894	824 – 849	
PiMPro Smart 900	E-GSM900	925 – 937.5	951.5 – 980	880 – 915	
PiMPro Smart 1821	DCS & UMTS	1805 – 1837	1855 – 1880	1710 – 1785	1920 – 1980
PiMPro Smart 1921	PCS & AWS	1965 – 1995, 2110 – 2155	1930 – 1945	1710 – 1755	1850 – 1910
PiMPro Smart 2600	LTE2600	2620 – 2644	2690 – Fixed	2500 – 2570	

PiMPro Smart Series Characteristics

Transmitter	Frequency Accuracy	$\pm$1 ppm @ +23°C; Stability $\pm$1 ppm -10°C to +55°C
	Frequency Aging	$\pm$1 ppm/yr
	Frequency Step Size	10 kHz
	Power Resolution	0.1 dB
	Adjustable Power Range	20 to 46 dBm × 2 (100 mW to 40 W × 2)
Receiver	Residual Intermod Level	-120 dBm (-125 dBm Typical)
	Measurement Range	-60 to -160 dBm
	Noise Floor	-136 dBm
	Reverse Power Protection	13 dBm (20 mW) contiuous
Measurement Mode	Measurement Method	One Port, Reverse PIM
	Real Time PIM	3rd & 5th PIM
	Return Loss	Measured in dB
	PIM vs Time	3rd & 5th PIM
	PIM Location (PIMPoint)	Distance in Feet or Meters with VP Settings
	Distance to Fault/Cable Loss	One Port Open-Short Calibration
	RX Interference	Receive Only Mode - Noise Floor Measurements
	Noise Floor Measurement	Up-Link noise level with TX off
	Frequency Sweep	Frequency Response
	DAS Feature	Low power single tone trasmit to evaluate connectivity and path losses, or external interference
Measurement Range	Return Loss	Directivity >20 dB; Resolution >0.1 dB
	VSWR	Measurement Range 9:1 to 1.1:1; Resolution >0.1 dB
	Cable Loss	Measurement Range 0 to 10 dB; Resolution >0.1 dB
	Distance to Fault	VSWR Range 17:1 to 1.02:1; RL Range 0 to 40 dB
System	Battery	>3 hours (Full Charge)
	Power	AC & DC (AC 90 - 256 V, 50 - 60 Hz)
	Data Ports	3 - USB 2.0, 1 - Ethernet LAN Port
	Remote Control	WiFi Enabled (802.11n)
Electrical	Max Power Consumption	<180 W
Mechanical	Weight	18.0 to 27 lbs. (8.5 to 12.5 kg.) (model dependant)
	RF Output Connector	7-16 DIN Female or 4.3-10 Female
	Dimensions (W×H×D)	16.5 × 15 × 8 in. (419 × 381 × 203 mm)
	Operating Temperature	-10 to 45°C, 14 to 113°F, 95% RH
	Storage Temperature	-30 to 60°C, -22 to 140°F, 95% RH

Parts & Accessories

PIMPRO Smart Series Analyzer System Packages	Model and Part Number
Includes one each PiMPro Smart Series unit (any model), Accessory Kit, Transport Case	PiMPro Smart 700 SP
	PiMPro Smart 700A SP
	PiMPro Smart 7080 SP
	PiMPro Smart 800 SP
	PiMPro Smart 850 SP
	PiMPro Smart 900 SP
	PiMPro Smart 1821 SP
	PiMPro Smart 1921 SP
	PiMPro Smart 2600 SP

PiMPro Smart Series Accessories & Kits	Description	Sys Pkg	Econ Pkg	PPT-AK	PPT-EAK
PP-AK-CBL-DMDM	Low PIM Male DIN to Male DIN jumper cable 3/8" 3 m (10 ft) length	X	X	X	X
PP-AK-CBL-DMDF	Low PIM Male DIN to Female DIN jumper cable 3/8" 3 m (10 ft) length	X		X	
PP-AK-PSTAN-80	PIM Standard - 80 dBm	X	X	X	X
PP-AK-DMDM	Low PIM 7–16 DIN Male to Male Adapter	X		X	
PP-AK-DFDF	Low PIM 7–16 DIN Female to Female Adapter	X		X	
PP-AK-DMMF	Low PIM 7–16 DIN Male to 4.3-10 Female Adapter	X		X	
PP-AK-DMMM	Low PIM 7–16 DIN Male to 4.3-10 Male Adapter	X		X	
PPT-OS	Open - Short Standard				
PP-AK-LOAD	Low PIM Termination Load < -168 dBc with both Male and Female 7–16 DIN	X	X	X	X
PP-AK-TORW	Torque Wrench for 7–16 DIN Connector	X	X	X	X
PP-AK-ADJW	Adjustable Wrench	X	X	X	X
PP-AK-FIXW	Small 32 mm Wrench for 7–16 DIN	X		X	
PPT-AK-BATT1	Rechargeable Battery (28.8 VDC, 3450 mAh, 99.4 WH)	X		X	
PPT-AK-BATT	Rechargeable Battery (28.8 VDC, 4500 mAh, 130.0 WH)				
PP-AKT-CHRGR	Battery Charger	X		X	
AKC	PiMPro Tower Accessory Kit Case			X	X
PPT-TC	Tower Transport Case	X	X		
PPT-AC-ADPT	AC/DC Power supply				

* All accessory kit components and cables have low PIM connectors, with PIM level <-122 dBm

STANDARDS & CERTIFICATIONS

Standards & Compliance

Safety	EN 60950-1, UL 60950-1
Emission	EN 55022, KN 11
Immunity	EN 55024, EN 61000-3-2, EN 61000-3-3, KN 61000-4-2, KN 61000-4-3, KN 61000-4-4, KN 61000-4-5, KN 61000-4-6, KN 61000-4-8, KN 61000-4-11
Environmental	IP54 Ingress Rated

Certifications

Federal Communication Commission (FCC) Part 15 Class B, CE, KN, CSA US, ISO 9001