

# PiMPro

PRECISION PASSIVE INTERMOD ANALYZER

**Passive Intermodulation (PIM)**, the new benchmark in antenna system health, has become one of the greatest challenges of frequency planners in today's mobile communication systems. System planners, equipment and component vendors alike are faced with the ever changing dynamics of higher transmit signals, basestation sensitivity and the nonlinear response of two or more frequency signals causing serious interference and network signal degradation. With the uncertainty of the root cause of PIM in any given system, the need to deploy specific testing solutions in a professional, reliable instrument has become paramount in maintaining the overall antenna health for system providers.

**PiMPro** has been designed to meet these challenges. Its compact, portable yet rugged features provide maximum power in a reliable, field proven design without compromising the accuracy and precision of intermodulation measurements.

As a leading provider of wireless basestation enhancement products, CCI set out to design and develop a reliable solution to system performance and enhancement challenges. **PiMPro** employs state-of-the-art technology and is built to meet the demands and needs of today's wireless suppliers.

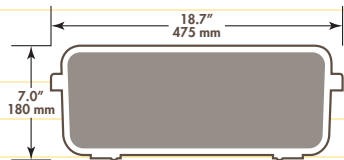
By design, the **PiMPro** Precision Passive Intermod Analyzer provides precise measurement of the 3rd, 5th, 7th and 9th order of intermodulation of any system or component under high-power conditions. In addition to passive intermodulation measurements, the unit will provide VSWR and Return Loss values. **PiMPro** can be used to verify the integrity of individual passive components including connectors, cable assemblies, antennas, filters, making it an integral performance tool in the field and in the lab.



**Precision Test &  
Measurement Solutions by CCI**

# PiMPro

## Technical Data

PiMPro Portable Model	PiMPro 700 [Dual Band]		PiMPro 850	PiMPro 900	PiMPro 1800	PiMPro 1921 [Dual Band]	
Frequency Bands	LTE 700L	LTE 700U	Cellular 850	GSM 900	GSM 1800	PCS 1900	AWS
Receive Range MHz	698-716	776-798	824-849	880-915	1710-1785	1850-1910	1710-1755
Transmit Range MHz	728-746	746-768	869-894	925-960	1805-1880	1930-1990	2110-2155
Weight	< 36 lbs (16.3 kg) Models 700 & 850 MHz						
Dimensions	18.7" x 14.8" x 7.0" (W x H x D) 475 mm x 375 mm x 180 mm (W x H x D)						
Operating Temperature	0-40°C, 32-113°F, 85% RH						
Storage Temperature	-10-60°C, 14-140°F, 85% RH						
Measures	3 <sup>d</sup> , 5 <sup>th</sup> , 7 <sup>th</sup> and 9 <sup>th</sup> reflected passive intermodulation of transmission lines, connectors, filters and combiners, jumpers, splitters, tower mounted devices, other passive system components						
Alarms	Audio & Visual Display						
Residual Intermod Level	-122 dBm (-165 dBc at 20 Watts and -168 dBc at 40 Watts)						
Receiver Noise Floor	-136 dBm						
Display Type	7" TFT Color Touch Screen						
Data Storage	USB Port and Internal Memory, supports HTML and PDF file format						
Measurement Modes	PIM and Return Loss, Frequency Sweep, PIM vs Time and RX Interference						
Power Requirement	90-256V, 50-60Hz						
Power Supply	450VA						
Power Test Port	2 variable signals adjustable from 33-46 dBm (40 Watts)						
Output Accuracy	± 0.2 dB						
PiM Measurement Accuracy	± 2.0 dB						
Directivity	>25 dB						
Software Controls	Via touch screen display; measurement mode, set-up, test time						
Waterproof Enclosure	IP67 rated for ingress, dust and immersion. Meets airline carry-on regulations.						
Certified	ASTM D4169 Rain/Vibration/Drop Test MIL-STD-810F Immersion						
Communication Ports	USB and Ethernet						



*PiMPro 1921  
portability in a  
rugged, field-proven  
design*



*PiMPro 1921*

*PiMPro 900*

*PiMPro 850*

*PiMPro 700*



*PiMPro 850 Rack Mount is ideal for research and development, manufacturing and lab testing environments, as well as stationary calibration resource.*

PiMPro Rack Model	PiMPro 700RM [Dual Band]		PiMPro 850RM	PiMPro 900RM	PiMPro 1800RM	PiMPro 1921RM [Dual Band]	
Frequency Bands	LTE 700L	LTE 700U	Cellular 850	GSM 900	GSM 1800	PCS 1900	AWS
Receive Range MHz	698-716	776-798	824-849	880-915	1710-1785	1850-1910	1710-1755
Transmit Range MHz	728-746	746-768	869-894	925-960	1805-1880	1930-1990	2110-2155
Weight	< 36 lbs (16.3 kg) Models 700 & 850 MHz						
Dimensions	18.7" x 14.8" x 7.0" (W x H x D) 475 mm x 375 mm x 180 mm (W x H x D)						
Operating Temperature	0-40°C, 32-113°F, 85% RH						
Storage Temperature	-10-60°C, 14-140°F, 85% RH						
Measures	3 <sup>rd</sup> , 5 <sup>th</sup> , 7 <sup>th</sup> and 9 <sup>th</sup> reflected passive intermodulation of transmission lines, connectors, filters and combiners, jumpers, splitters, tower mounted devices, other passive system components						
Alarms	Audio & Visual Display						
Residual Intermod Level	-122 dBm (-165 dBc at 20 Watts and -168 dBc at 40 Watts)						
Receiver Noise Floor	-136 dBm						
Display Type	7" TFT Color Touch Screen						
Data Storage	USB Port and Internal Memory, supports HTML and PDF file format						
Measurement Modes	PIM and Return Loss, Frequency Sweep, PIM vs Time and RX Interference						
Power Requirement	90-256V, 50-60Hz						
Power Supply	450VA						
Power Test Port	2 variable signals adjustable from 33-46 dBm (40 Watts)						
Output Accuracy	± 0.2 dB						
PIM Measurement Accuracy	± 2.0 dB						
Directivity	> 25 dB						
Software Controls	Via touch screen display; measurement mode, setup, test time						
Communication Ports	USB						

#### Accessories Available

**Accessories Included** Power Cord, Operation Manual

<b>PiMPro-AK</b>	Low PIM Male DIN to Female DIN jumper cable	3m (10 ft) length
<b>Accessory Kit</b>	Low PIM Male DIN to Male DIN jumper cable	3m (10 ft) length
	Low PIM 7-16 DIN Male to Male Adapter	
	Low PIM 7-16 DIN Female to Female Adapter	
	Low PIM 7-16 DIN Male to N Female Adapter	
	Low PIM 7-16 DIN Male to N Male Adapter	
	Low PIM Termination (Load) with both Male and Female DIN	
	Low PIM Standard Verification Source Tool	
	Low PIM 1.5 m Cable	
	Low PIM load <-168 dBc	
	Torque Wrench for 7-16 DIN Connector	
	Adjustable Wrench	
	Small 32 mm Wrench for 7-16 DIN	



*PiMPro Universal Accessory Kit PiMPro-AK*

# PiMPro

PRECISION PASSIVE INTERMOD ANALYZER

**Communication Components Inc.** is one of the fastest growing providers of basestation enhancement products and services. Our innovative solutions are designed and installed to allow service providers to get the most out of their basestation investments. With 25 years experience as a wireless technology service provider, and our worldwide network of manufacturing and service centers, **CCI** is poised to deliver the expertise, technology, and reliability to meet all your basestation enhancement needs. Contact an area representative today.

## Corporate Headquarters Communication Components Inc.

89 Leuning Street  
South Hackensack NJ 07606  
United States of America  
201-342-3338  
201-342-3339 Fax  
[www.cciproducts.com](http://www.cciproducts.com)

## European Regional Center Communication Components Europe Inc.

19 Rodney Road  
Cheltenham Gloucester GL50 1HX  
United Kingdom  
+44 7721 632636  
[europe@cciproducts.com](mailto:europe@cciproducts.com)

## Asian Regional Center HEJI International Ltd.

9D Mirae Asset Tower  
166 Lujiazui Ring Road  
Shanghai  
China  
+86-021-5012-2318  
[www.heji-china.com](http://www.heji-china.com)

PiMPro is also available from these fine independent industry partners.



Delivering Results You Can Trust Since 1965

6060 Sepulveda Boulevard  
Van Nuys, California 91411  
(818) 787-2100 Phone  
(800) 688-1111 Toll Free  
[sales@electrorent.com](mailto:sales@electrorent.com)  
[www.electrorent.com](http://www.electrorent.com)

For additional product ordering information contact your area Communication Components Inc. Account Representative or independent distributor.

89 Leuning Street • South Hackensack, NJ 07606 USA • 201-342-3338 • Fax 201-342-3339  
© 2011 Communication Components Inc. All rights reserved. DS1001-0811

The CCI logo consists of a stylized globe icon made of horizontal lines in blue and red, followed by the letters 'CCI' in a bold, black, sans-serif font.  
EXTENDING WIRELESS PERFORMANCE  
[www.cciproducts.com](http://www.cciproducts.com)