



iTest Master IM-427

Cable & Antenna Analyzer 0.4 GHz to 2.7 GHz



January.2013

Smarter

- 1 Second Calibration Time
- 7 Hour Battery Operation
- 1.7 Kgm Weight
- One-Time Calibration for the entire bands range
- Friendly User Interface
- Alphanumeric Keypad
- Shortcut Buttons

Reliable

- RF Port Protection > 2 Watts
- Rugged, Splash-proof Construction
- Industrial-Standard ports
- Best in Class Accessories wearable after 5000 matings
- Modular Assembly
- Modern Maintenance Concept

Versatile

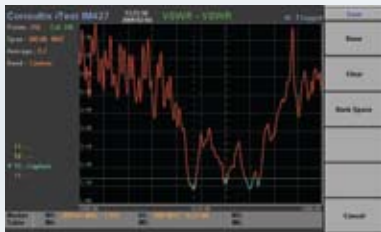
- Frequency Domain
- Reflectometry for the Utmost Accuracy
- 7" TFT Touch Screen
- Internal & External Storage
- PC Reporting S/W
- Pre-set Cable List
- Regional Frequency bands List



iTest Master IM-427

Highlights

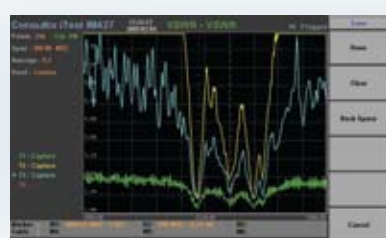
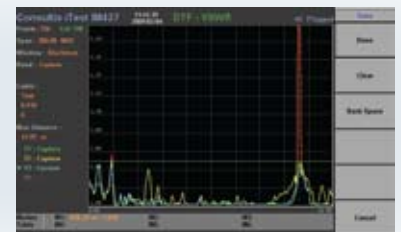
As a Technology Leader dedicated to fulfill the niche requirements of Telecom Test Users, Consultix came with a State-of-the-art, cost effective, Compact Cable & Antenna Analyzer the IM-427. The tool is magnificently accurate, lightweight, compact, operated with a friendly man-machine-interface, and modular in design to save user's investments and enhance user's logistics cycle.



VSWR or Return Loss is the basic measurement in any Cable & Antenna Analyzer which expresses the matching of the Signal RF Runway, and how much of the Site RF generated Power is radiated. Accuracy and Precision are crucial, hence thoroughly considered in the IM-427 & the Calibration Kit to achieve best results.

State-of-the-Art Frequency Domain Reflectometer Technology is employed in the IM-427 to guarantee highest resolution to pinpoint adjacent faults along the Cable Run and Antenna.

Besides, distance to fault accuracy is an essential parameter that was observed to provide efficient demarcation of fault sources.

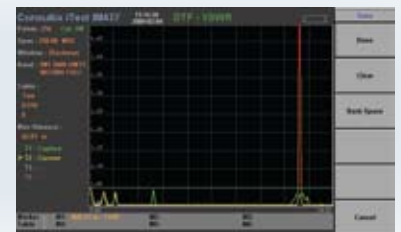


Quick and efficient test mission mandates a comprehensive set of measurement manipulation tools.

The IM-427 displays and overlays up to 4 different trances. Besides, the GUI is equipped with up to 8 touch markers, delta markers, limit lines, peak and minima searching capabilities.

The high dynamic range of the IM-427 allows user to present major faults without losing the capability to sensibly pinpoint minor faults with low reflection.


Nevertheless, the unit's RF Port provides the highest protection from high reflected power (2 Watts) due to test setup mistakes.





iTest Master IM-427





Specifications

Specifications	
Measurement Modes	VSWR, Return Loss, DTF, and Cable Loss
Frequency Bands	900 MHz to 2700 MHz : Model A 400 MHz to 2700 MHz : Model B
General RF Characteristics	
Internal Frequency Accuracy	2.5 ppm
RF Output Power	-10 dBm to 0 dBm
Max. input Power	33 dBm (1 Watt continuous wave, 2 Watt peak)
Interference Immunity	10 dBm on channel, -5 dBm on frequency
RF output	50 ohm N-type Female
Reflection Measurements	
VSWR Range	1 to 65
Return Loss range	0 to 60 dB
Return Loss resolution	0.01 dB
Measurement Speed	≤ 3.8 msec/data point
Accuracy (Calibration Kit Directivity)	42 dB
DTF	
Range	0-1000 meter (according to cable type)
Vertical Range (VSWR)	1 to 60
Vertical Range (Return Loss)	0 to 60 dB
Vertical Resolution	0.01
DTF Measurement Speed	≤ 3.8 msec / data point
DTF Horizontal Accuracy	$V_p / (\Delta) \times 1.5 \times (10^{\wedge}8) \times 0.94$ V_p = Propagation Velocity, Δ = F2 - F1
Setup	
Simultaneous Traces	Up to 4
Markers	6 Markers & Delta Markers , Peak & Minimum Search
Sweep	Continuous / Hold
Windowing	Rectangular, and Blackman
Cable	Cable Type, Propagation Velocity, Cable Loss, and m/ft
Data Points	128, 256, 512, or 1024 Points
Others	Auto Scaling, Pre-set Cable List, Pre-set Regional Bands List, and Limit Line
Memory	
Type	Internal, and External USB storage
Save/Recall	Setup, Measurements, and Screen shot
Internal memory	1000 trace
Battery & Power Supply	
Battery	6600 mA-H, Lithium Ion
Battery operation time	7 Hours Continuous operation
Input Power	9 to 14 VDC, Power Jack 2.1mm ID 5.5mm OD
Power Consumption	<15 Watts
Charger	100 -240V AC, 50 - 60 Hz
Physical & Environmental	
Enclosure	Industrial, Water-proof and, Dust-proof
Display	7" TFT, LCD Touch Screen
Ports & Interfaces	IP-65 Water & Dust Sealed ; N-type Female, 2 x USB, and DC input 
External Dimensions	L280 x W170 x H60mm
Weight	< 1.7 Kgm incl. battery
Operating Temp	-10 to +50 C
Humidity	95%
Certifications	
	CE
Standard package	Tester, Protective Soft Case, Charger, 8 GB USB memory, Calibration Certificate, and User Manual



iTest Master IM-427

Ordering Information

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Cable and Antenna analyzer (900 MHz to 2700 MHz) incl. standard Accessories	IM-427 A
Cable and Antenna Analyzer (400 MHz to 2700 MHz) incl. standard Accessories	IM-427B
Calibration Kits (Precision Combo ; Open, Short, Match/Load)	
Precision Calibration kit N Male (6 GHz, 42 dB Return Loss)	IM-427 -CKN M
Precision Calibration kit N Female (6 GHz, 42 dB Return Loss)	IM-427 -CKNF
Precision Calibration kit 7/16 Male (6 GHz, 42 dB Return Loss)	IM-427 -CK7 M
Precision Calibration kit 7/16 Female (6 GHz, 42 dB Return Loss)	IM-427 -CK7F
Adapters	
Adapter N Male Precision - 7/16 Male Precision*	IM-427 -ANM7M
Adapter N Male Precision - 7/16 Female Precision*	IM-427 -ANM7F
Adapter N Female Precision - 7/16 Male Precision*	IM-427 -ANF7M
Adapter N Female Precision - 7/16 Female Precision*	IM-427 -ANF7F
	
Test Cables	
1.5m Launch cable, N male to 7/16 male	IM-427 -C7M
1.5m Launch cable, N male to N female	IM-427 -CNF
1.5m Launch cable, N male to N male	IM-427 -CNM
	
Others	
Spare charger	IM-427 -AC
Car charger	IM-427 -CC
5 Watt Load/Match/Termination	IM-427 -DT 

* VSWR: 1.02 f<1.8 GHz, 1.03 for f>1.8GHz

Who needs it?

Mobile operators & Telecom Vendors
Integrators & Service Sub-Contractors
Infra-structure, and Tower Site Providers
Consultants

Applications

Site Installation, commissioning & Acceptance
Antenna & Antenna Run Assessment
Cable & Feeder Characterization
Site Maintenance & Troubleshooting