

EM-5550 | Antenna Kit, UMTS Cellular



Description

The Electro-Metrics series of cellular band antenna kits are designed to provide the operator with an assembly of equipment necessary to receive and properly condition signals for processing. The kits are packaged in a convenient case to ensure safe, secure, and discreet transport and storage.

The Electro-Metrics UMTS Cellular antenna kit provides an integrated and packaged assembly of hardware required to condition the RF environment for improved cellular reception. The kit contains omni directional antennas and a high gain directional antenna, along with cabling, tripod, and mounting assemblies. The heart of the RF conditioning is the Electro-Metrics asymmetric amplifier.

The EM-5550 kit is made up of:

- (2) EM-5552 Omni-directional Antennas
- (2) EM-5551 Directional Antennas
- (1) EM-5553 Asymmetric Amplifier
- (1) EM-5514 Control Unit
- (1) EM-6134 Tripod
- (1) EM-1601 Antenna/Amplifier Mounting Bar
- (3) EM-5517 Antenna/Amplifier Interconnect Cables
- (1) EM-5516 Amplifier/Control Unit Interconnect Cable (20 foot)
- (1) EM-5518 Control Unit / Receiver Interconnect Cable
- (1) EM-5515 Battery Charger
- (1) EM-1390 Carrying Case
- Optional: Linear DC Power supply (110/220VAC input)

Ref: 100501



Specifications subject to change without notice.
Unless otherwise specified, product is manufactured in
Johnstown, NY USA.



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The asymmetric amplifier drives the RF performance of the system by providing sharply defined pre-selection. This isolates the uplink and downlink frequency bands from each other and the balance of the undesired RF spectrum. This isolation allows variable gain management of each individual channel, yielding a much better level match between uplink/downlink bands at the amplifier output. The conditioned RF environment produced provides cellular processing equipment the potential for significantly enhanced performance.

The kit is designed for quick operator set-up, as all necessary items assemble simply and easily. The mounting bar is placed on the tripod, and the asymmetrical amplifier and antennas drop into place on the mounting bar. The amplifier receives power and control signals via the RF cable from the remote control unit, which can be placed at a distance of up to fifty feet from the antennas and amplifier.

Specifications:

EM-5551

Directional Antenna

Frequency Range:	1885 - 2200 MHz
Gain:	≥ 10 dBi
Beamwidth:	60 degrees Horizontal 50 degrees Vertical
Impedance:	50 ohms nominal
Connector:	SMA
Size inches(cm):	2 (5.1) Deep x 9.25 (23.5) Dia.
Weight lbs (kg):	1.12 (.51)



EM-5552

Omni-Directional Antenna

Frequency Range:	1885 - 2200 MHz
Gain:	≥ 3 dBi (nominal)
Gain Flatness:	$\pm .75$ dB (typical)
Beamwidth:	360 degrees Horizontal 90 degrees Vertical
Impedance:	50 ohms nominal
Connector:	SMA
Size inches(cm)	10.75 (27.3) L x 1.25 (3.2) Dia.
Weight lbs (kg)	.22 (.1)



EM-5514

Control Unit

RF Connectors:	SMA Female
Charger Connector:	5 Pin Lemo
External DC Connector	2 Pin Lemo
External DC Requirements	12-15VDC @ 150mA
Fuse, Battery	2 Amp Slo-Blo
Fuse, Power	0.5 Amp Slo-Blo
Dimensions in (cm):	6.75(17.2) x 6.25(15.9) x 3.5(8.9)
Weight lbs (kg):	3.4 (1.55)
Battery Charger	100-240VAC Input



Contains 8Ah, 15.2VDC Lithium Ion Battery Pack

EM-5553

Asymmetric Amplifier

Frequency Range: Uplink: 1885 - 2025 MHz
Downlink: 2110 - 2200 MHz



Gain: Uplink Channel Gain (typical): 7 dB
Downlink Channel Gain (typical): 2 dB
Downlink Channel Attenuation (over gain): 0, -10,-20 dB

Preselection:

Uplink: -3dB Bandwidth: 155 MHz
-30 dB @ 1955 MHz \pm 109 MHz
-60 dB @ 1955 MHz \pm 174 MHz

Downlink: -3dB Bandwidth: 105 MHz
-30 dB @ 2155 MHz \pm 79 MHz
-60 dB @ 2155 MHz \pm 120 MHz

Input IP3: > 5dBm (@ maximum gain)

Connectors: SMA
Power Consumption <100mA
Dimensions in. (cm): 5.25(13.4) x 3(7.6) x 1.5(3.8)
Weight lbs. (kg): 0.63 (0.29)