

# PLUTO



## *Radio Bridge & Router* *Operational Range –15/40 Kms* *Super High Power of +28dBm*

MAKSAT Pluto balances enterprise-scale security, management and Quality of Service features with high performance.

### Features Benefits

The MAKSAT Pluto Radio, is a any Point to Multipoint and Multipoint-to Multipoint OFDM Radio Bridge Equipment for High Bandwidth connectivity. It has a range of up to 15kms with the integrated antenna and up to 40kms with external antenna.

### HOTSPOT

Built-in HOTSPOT and Bilngo, plus PPPOE server/client

### *Built-in Router Specifications:*

#### Basic Network Platform

TCP/IP protocol suite

#### Firewall and NAT

Packet filtering, source and destination NAT, source MAC addresses, ports, protocols, protocol options, interfaces.

#### Routing

Static, mesh OLSRD

#### Bridging

Spanning tree protocol, multiple bridge interfaces, bridge firewall

#### Bandwidth Management

Per IP / protocol / subnet / port, CBQ, RED, SFQ, byte limited queue, packet limited queue



## Feature

- Pre WiMAX / OFDM 5Mhz & 10Mhz
- 2.192-2.99Ghz, 4.9-6.1Ghz
- Any Point to Any point and Multipoint to Multipoint.
- IP Routing
- OLSR & Static
- Ultra Secure Wireless 256 bit AES, WPA and WPA2 encryption, Security, VPN and firewall
- GUI, Telnet, SSH
- QOS with Traffic Shaping
- Watch Dog Timer
- Sensitivity of (-)105 XR Rate (Best in the Industry)
- Transmit Power Control
- Pluto with 3G backhaul also available

### QOS

Full Scale QOS with traffic shaping and user friendly Presets .

### DNS client/Server

Name resolving for local use, Dynamic DNS Client

### Multiple SSID

Offers Virtual AP support with multiple SSID and individual encryption and IP address/ DHCP.

### SNMPV2

read only access

### Tunnels

PPTP, EoIP (Ethernet over IP)

Multicasting support (beta available)

### VLAN

NTP Network Time Protocol server and client

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## Radio Technical Specifications

<b>Frequency Range</b>	
USA (FCC) :	2.412GHz ~ 2.462 GHz (CH1 ~ CH11), 5150MHz – 5350MHz / 5725MHz – 5850MHz
Europe (ETSI):	2.412 GHz ~ 2.472 GHz (CH1 ~ CH13), 5150 MHz – 5350 MHz / 5470 MHz – 5725MHz
Japan (TELEC):	2.412 GHz ~ 2.472 GHz (CH1 ~ CH13), 5150 MHz – 5250 MHz
Extended Super Channel (optional)	2.192GHz ~ 2.499GHz, 4915MHz - 6075MHz
Channel Size (pre-wimax)	40 Mhz (5ghz only, turbo), 20 mhz, 10 Mhz, 5 Mhz
Receive Sensitivity	1 Mbps -98dBm/ -105dBm (XR) 2 Mbps -96 dBm 6 Mbps -94 dBm 9 Mbps -93 dBm 11 Mbps -92 dBm 12 Mbps -91 dBm 18 Mbps -90 dBm 24 Mbps -86 dBm 36 Mbps -83 dBm 48 Mbps -77 dBm 54 Mbps -74 dBm
Antenna Connector	N Female
Integrated antenna	16dBi (30° V and 30° H)
Wireless Data Rate	54 Mbps, 108 Mbps(5Ghz only)
Super fast Mode upto108 Mbps	Yes
RF Modulation Scheme	QAM64, QAM16, QPSK, BPSK, CCK (OFDM, DSSS)
Duplex Format	TDD, FDD
Certification	FCC , ETSI
Range	15Km / 40Km(external antenna)
Transmit Power	+28dBm (600mW)
Extended Range (XR)	Best in the industry (-) 105dBm

Watch Dog Timer	Yes
QOS/COS/GOS	Yes
Watch Dog Timer	Yes
Bandwidth Management	Yes
Router	Yes
Packet Format	IEEE 802.3 and Ethernet II
Network Connection	10 /100 Base T
	RJ Female Ethernet Connection with surge protection
Bridge Functionality	Intelligent Local Packet Filtering (self-learning), Node by node user configurable data rates (CIR and MBR)
Network Topologies	Any point-to Multipoint
	Multipoint-to Multipoint
Repeater Mode	Built-in Mode
RF Collision Management	Combined TDD and FEC
Security	256 bit AES, WPA and WPA2 encryption, Security, VPN and firewall
Management	https, http, SSH, Telnet
SNMP	Version 2
Power	110 VAC or 220 VAC , 18v – (-)48v DC
Power Consumption	Less than 15W (fully loaded)
Height x Width x Depth Weight	7" x 11" x 5" 1.2Kg
Operational Temperature	(-)40C to (+)65C
Humidity	Humidity 0-95% non condensing, Outdoor weatherproof enclosure

\*Order options: Pluto 2.4Ghz  
Pluto 5.8Ghz