



## *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 with 3G\* as backhaul, 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

#### SNMPV2

read only access

#### Tunnels

PPTP, EoIP (Ethernet over IP)

**Multicasting** support (beta available)

#### VLAN



## Feature

- Pre WiMAX / OFDM 5Mhz & 10Mhz
- 2.192-2.99Ghz, 4.9-6.1Ghz
- Any Point to Any point and Multipoint to Multipoint.
- 3G\* backhaul (optional)
- 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

## 3G Port

It has a USB port to connect the modem (3G,EVDO) for the 3G services, provided by the telephone operators in the area. 3G modem provides the high speed Internet connectivity to the equipment and this bandwidth can be distributed by the same equipment.

In other word's, it takes Internet bandwidth (high speed, 2-3Mbps or more) from 3G service provider with the help of USB modem and distribute to the others (laptop, computers or another equipment).

### 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.

**NTP** Network Time Protocol server and client

## 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)
3G (optional)	Yes (3G* , EVDO)
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

\* 3G compatibility subject to Country/state specific  
Note: 3G Modem will be provided by customer

# Order options: Pluto 2.4Ghz 3G or  
Pluto 5.8Ghz 3G