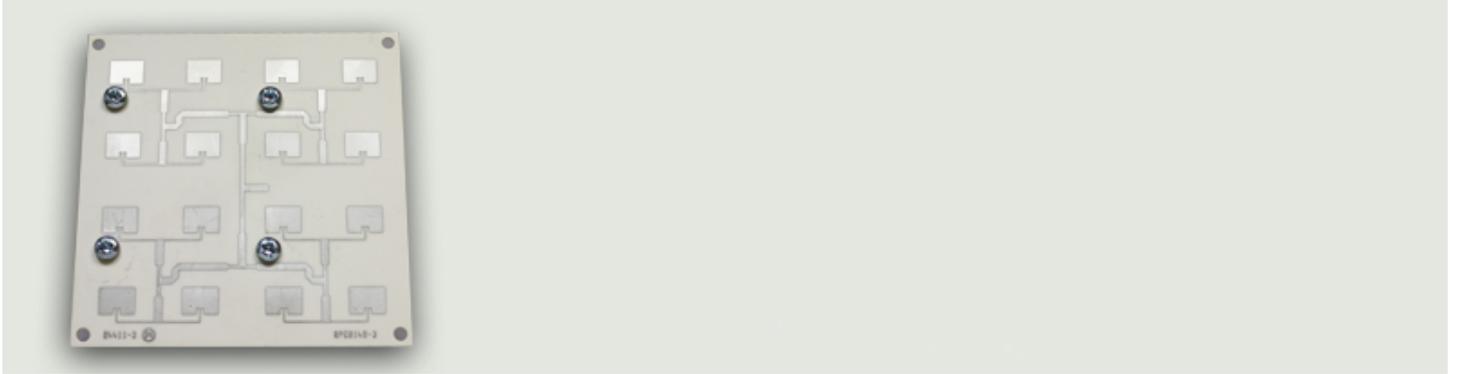


X-Band Planar Transmitter

Model Number MST4440



Key Features

- Low Cost
- High Gain Patch Antenna
- Small and Flat Profile
- Rugged, reliable construction
- Low Power consumption
- RoHS compliant

Applications

- Low data rate microwave link
- Microwave Barrier system
- Traffic Monitoring
- Moisture content measurement

The Microwave Solutions MST4440 is an X-Band microwave transmitter designed to operate as the transmit end of a link.

The unit is supplied with an integral high gain/narrow beam antenna array. The circuit features a dielectric resonator stabilised FET oscillator, which provides stable operation over a broad temperature range in either CW or low duty cycle pulse mode.

Operation

The unit contains a dielectric resonator stabilised microwave oscillator coupled to a high gain, narrow beam patch array antenna.

The oscillator can be pulse modulated to provide a low data rate microwave link or to reduce power consumption.

The unit is normally operated in conjunction with an MSR4400 receiver.

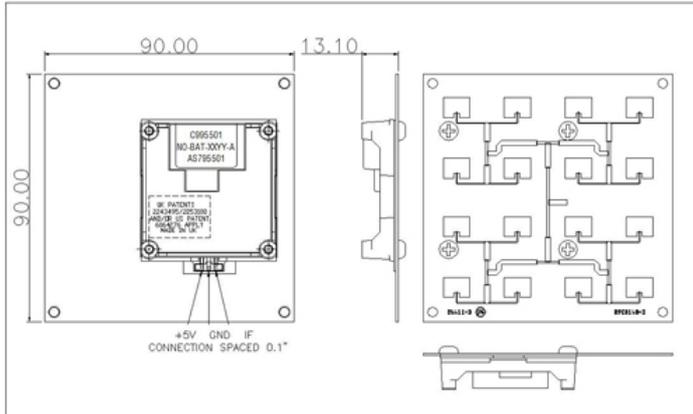
The unit is manufactured using low cost surface mount manufacturing techniques which are field proven as being rugged and reliable.

Available Modules

Model	Country	Frequency	Comments	Order Code
MST 4440	USA, Canada	10.525GHz		C995802
MST 4440	UK	10.587 GHz		C995801

X-Band Planar Transmitter

Model Number MST4440



Mechanical Characteristics

Weight	25 g
Tab Connections	0.1" spacing
Metallisation	Sn+Ni+Cu
	JEDEC JESD97 (e2)

Environmental Characteristics

RoHS Compliant	
Power/Temp. Coefficient (over operating temp. range)	3 dB
Frequency/Temp. Coefficient (over operating temp. range)	6.5 MHz
Operating Temperature	-10° C to +55° C
Storage Temperature	-30° C to +70° C

Electrical Characteristics

Transmitter

Frequency	See table over
Frequency Setting Accuracy	3 MHz
Power Output (Min.)	20 dBm EIRP
Operating Voltage	+5 V ± 0.25 V
Operating Current (CW)	60mA (max) 40mA (typ)
Harmonic Emissions	<-7dBm

Pulse Mode Operation

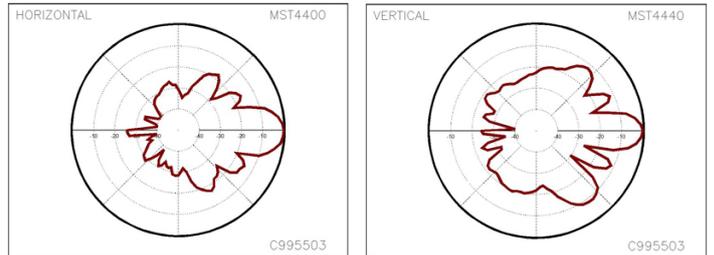
Average Current (5% DC)	2 mA typ.
Pulse Width (Min.)	5 µsecs
Duty Cycle (Min)	1%

Antenna : standard

Gain	17 dBi
-3 dB Beamwidth	
E Plane	18°
H Plane	18°

NOTES Unit functions over - 30° C to +70° C, but performance may be degraded above +55° C

Coverage Pattern



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