

SDAR (Satellite Digital Audio Radio) Antenna

MODEL: XM-650



- High Gain & Low Noise
- ESD Resistance up to 8KV (Contact Discharge)
- Waterproof for Better Reliability
- Sirius and XM Radio Compatible

Applications

- Performance Enhancement for Satellite Digital Audio Radio Systems with a Switch Circuit for an Optional Antenna
- Sirius Radio (U.S.) compatible car/ table/ portable radios and other kinds of radios
- XM Radio (U.S.) compatible car/ table/ portable radios and other kinds of radios

Specification

PHYSICAL CONDITION	
Constructions:	Polycarbonate radome, detachable cable/connector for easy mount, rubber-O-ring between top radome and screw base for waterproof
Dimensions:	60mm(Dia.) x 90mm(H)
Weight:	200grams (w/o cable & connector).
Color:	Standard in ivory white, other colours available upon request.
Mounting:	Bulkhead mount with 0.8 inch threaded wing nut (standard accessory).
Mounting Adapters	Pole mount to 1"-14 UNS threaded mast
Base mounting	FB1 1"-14 UNS
Cable & Connector	
RF cable:	SMA(M) +10 meter RG58 +TNC(M) (standard) other length (optional)
Pulling strength:	6 Kg @ 5sec. molded plastic on connector end for strain relief.
Connector	TNC(F) or SMA(F)
Antenna Element	
Center Frequency:	2338.75 MHz +/-6.25 MHz
Polarization:	R.H.C.P. (Right Handed Circular Polarization).
Absolute Gain @ Zenith:	+2 dBi typical.
Gain @ 10° Elevation:	1 dBi typical.

Axial Ratio:	3 dB max.
Output VSWR:	2.0 max
Output Impedance:	50 ohm
Low Noise Amplifier	
Center Frequency:	2338.75+/-6.25 MHz
Power Gain:	30db +/-1db
Bandwidth:	10 MHz min.
Noise Figure:	1.0 typ
Outer Band Attenuation:	10 dB min. @ Fo +/-10 Mhz.
Supply Voltages:	4~5.5V DC.
Current Consumption:	4V : 10.3 mA Typical 4.5V : 12 mA Typical 5V: 13 mA Typical 5.5V: 15 mA Typical
Output Impedance:	50W ohm
Overall Performance: (antenna element, LNA & coax cable)	
Center Frequency:	2338.75+/-6.25 Mhz.
Gain:	At 90° vertical to sky 30 ± 4.5dBi (cable loss) Note:1 Mounted on the 60mm x 60mm square ground plane
Noise Figure:	1.0 max.
Axial Ratio:	2 dB max.
Bandwidth:	10 MHz min. @ S11≤-10 dB
VSWR:	2.0 max.
Output Impedance:	50W ohm
Environmental	
Operating Temperature:	-40°C~ +85°C.
Storage Temperature:	-40°C~ +90°C.
Relative Humidity:	95% non-condensing.
Water Resistance:	100% waterproof.

* This specification is subject to change without prior notice

Data Updated: JUL.02, 2010