

## 433MHz ISM Band PCB Antenna

Part Number: PIOV.004.NRA.A

### Features and Benefits

Balanced antenna with independent ground

Compact 140mm by 15mm size

40% antenna efficiency for 433MHz band antenna

### Application

- Smart meter
- Industrial applications (Machine to machine (M2M) communication, etc.)
- Smart City (Lighting, Parking, etc.)
- Medical (Telemedicine and telehealth device, etc.)
- Automotive applications



Smart meter

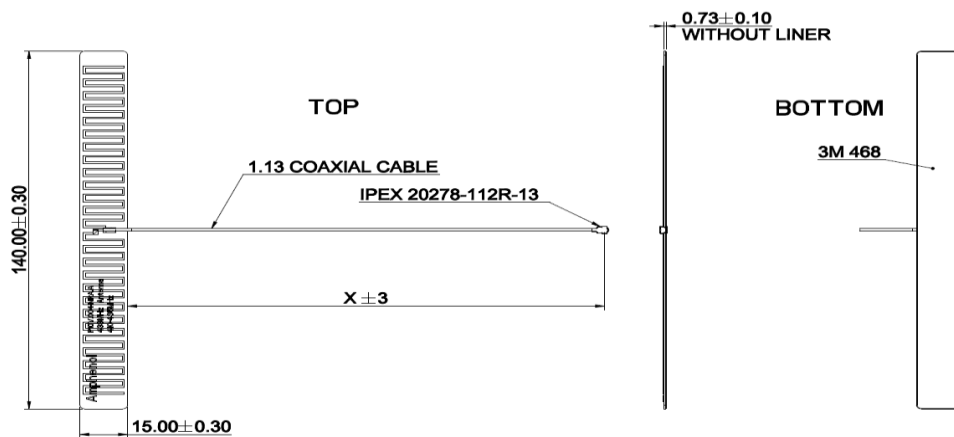


Industrial applications



Smart lighting

### Product Drawing



## Specifications

Band (MHz)	410	435
Return loss (dB)	-8.7	-7.0
Efficiency	28%	60%
Peak gain (dBi)	-1.7	0.1
VSWR	≤2.5	
Impedance	50 ohms	
Polarization	Linear	
Radiation Pattern	Omni-directional	
Test environment	Antenna in free space	
Power handled	5W	
Dimensions	140*15*0.8mm	
Operation temperature	-40°C ~ +85°C	
Storage temperature	-40°C ~ +85°C	
Weight	2.9 g	
Connector	IPEX MHF	
Cable standard	1.13 coaxial cable, length X (Std.: 150mm)	
RoHS compliant	Yes	
Adhesive	3M 468	

## Signal attenuation along cable effect on antenna efficiency

Part Number	Coaxial cable length (mm)	Frequency (MHz)	Peak gain (dBi)	Total efficiency
PIOV.004.NRA.A-050	50	410	-1.6	31%
		435	0.2	62%
PIOV.004.NRA.A-100	100	410	-1.6	30%
		435	0.2	61%
PIOV.004.NRA.A-150	150	410	-1.7	30%
		435	0.1	60%
PIOV.004.NRA.A-200	200	410	-1.8	30%
		435	0.0	59%