

## 2G/3G/4G Cellular Band PCB Antenna

Part Number: **PIOV.0TW.NRA.A**



### Features and Benefits

- Balanced antenna with independent ground
- Compact 100mm by 20mm size
- 50% antenna efficiency for 2G/3G/4G cellular band antenna

### Application

- Smart home
- Industrial applications (Machine to machine (M2M) communication, etc.)
- Consumer electronics (CE) applications (Mobile POS, Mobile gaming devices, etc.)
- Medical (Telemedicine and telehealth device, etc.)
- Automotive applications (T-Box, Infotainment devices, etc.)



Automotive

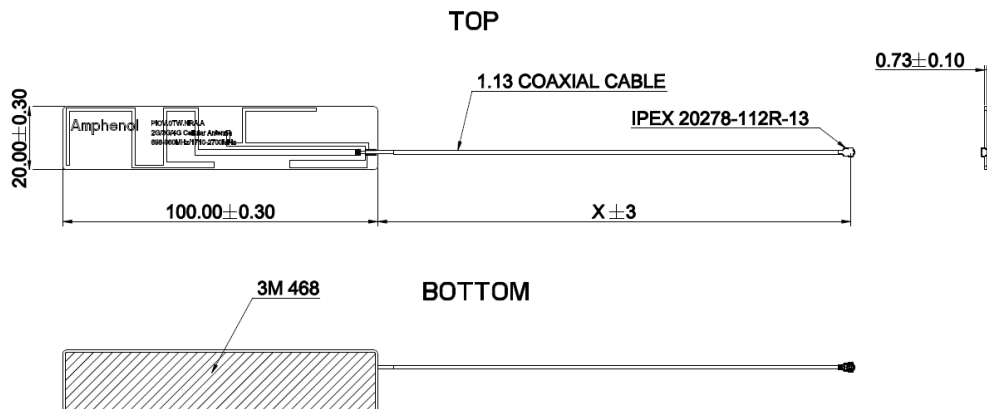


Consumer Electronics



Smart Home

### Product Drawing



## Specifications

Band (MHz)	698	824	960	1710	2170	2300	2690
Return loss (dB)	-14.2	-14.0	-24.3	-10.3	-8.6	-14.0	-5.9
Efficiency	50%	50%	45%	53%	54 %	74%	46%
Peak gain (dBi)	2.6	2.3	0.8	3.6	3.6	4.4	2.2
VSWR	≤3.0						
Impedance	50 ohms						
Polarization	Linear						
Radiation Pattern	Omni-directional						
Test environment	Antenna in free space						
Power handled	5W						
Dimensions	100*20*0.7mm						
Operation temperature	-40°C ~ +85°C						
Storage temperature	-40°C ~ +85°C						
Weight	3.5 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.0TW.NRA.A-050	50	698	2.7	50%
		960	1.0	45%
		1710	3.8	56 %
		2690	2.5	49%
PIOV.0TW.NRA.A-100	100	698	2.6	50%
		960	0.9	45%
		1710	3.7	54%
		2690	2.3	48%
PIOV.0TW.NRA.A-150	150	698	2.6	50%
		960	0.8	45%
		1710	3.6	53%
		2690	2.2	46%
PIOV.0TW.NRA.A-200	200	698	2.5	48%
		960	0.7	43%
		1710	3.5	52%
		2690	2.0	44%