

2.4 GHz to 2.5 GHz Concave Shaped Antenna, Dipole, RP SMA Male Connector, 2 dBi Gain

KPANRBD1051



Features

- 2400-2500 MHz, 2 dBi Gain
- RP-SMA male connector
- Plug and play
- VSWR < 2:1
- Linear polarization
- Dipole antenna

Applications

- 2.4 GHz Wi-Fi and ISM applications
- WLAN applications
- IOT, Wireless audio/video systems
- Home automation
- Telemetry, remote monitoring
- Wireless data acquisition
- 802.11 b/g/n, wireless hotspots
- PtP and PtMP applications
- 5G band: n53

Description

The KP performance KPANRBD1051 is a 2.4 GHz to 2.5 GHz concave shaped antenna that is ideal for WLAN, Bluetooth, IOT, wireless audio systems, home automation, telemetry, remote monitoring, wireless data acquisition, 802.11 a/b/g/n/ax, wireless hotspots, 2.4 GHz Wi-Fi and ISM applications. This IPx7-rated communication antenna has a black radome made from TPEE or ABS material. Our antenna is 0.55 inches wide, 3.82 inches long and 0.55 inches tall.

These omni antennas have a waterproof design, linear polarization and a RP-SMA type male connector. This IPx7-rated KPANRBD1051 antenna transmits high-power signals, increasing the signal strength, thus providing improved coverage, better-broadcast control and faster speed. KP performance dipole antenna has a gain of 2 dBi for the 2.4 GHz to 2.5 GHz frequency range. Our black colored omnidirectional antenna functions between -40 to 65 degrees C and has 50 ohms impedance.

The RP-SMA male connector on the communication antenna enables it to be used vertically, at a straight angle, or at any angle in between. KP Performance 2 dBi antennas have a sturdy outdoor design, a high power handling capacity, and all of their components are DC grounded for lightning safety. Our high-quality KPANRBD1051 omnidirectional antenna has a maximum input VSWR of 2:1, which results in the best power transfer and reduced losses.

The KP performance has one of the largest in-stock collections of 2 dBi gain omni directional antennas for all your critical equipment and power sources. Quickly make your online purchase right now to take advantage of our same-day shipping. For further information on similar products, our expert technical support and knowledgeable sales team can help you get the 2.4 GHz to 2.5 GHz concave shaped antenna as per your requirements.

Configuration

Design	Rubber Duck
Band Type	Single
Radiation Pattern	Omni Directional
Polarization	Linear
Connector Type	SMA Male Reverse Polarity

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	2,400		2,500	MHz
Input VSWR			2:1	

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:
[2.4 GHz to 2.5 GHz Concave Shaped Antenna, Dipole, RP SMA Male Connector, 2 dBi Gain KPANRBD1051](#)

2.4 GHz to 2.5 GHz Concave Shaped Antenna,
 Dipole, RP SMA Male Connector, 2 dBi Gain

KPANRBD1051



Impedance	50	Ohms
Gain	2	dBi
Input Power	10	Watts

Mechanical Specifications

Radome Material	TPEE/ABS
Size	
Length	3.82 in [97.03 mm]
Width	0.55 in [13.97 mm]
Height	0.55 in [13.97 mm]
Weight	0.0242 lbs [10.98 g]

Environmental Specifications

Temperature	
Operating Range	-40 to +65 deg C
Storage Range	-40 to +80 deg C
Environment	Waterproof

Compliance Certifications (see [product page](#) for current document)

IP Rating	IPx7
-----------	------

Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:
[2.4 GHz to 2.5 GHz Concave Shaped Antenna, Dipole, RP SMA Male Connector, 2 dBi Gain KPANRBD1051](#)

2.4 GHz to 2.5 GHz Concave Shaped Antenna,
Dipole, RP SMA Male Connector, 2 dBi Gain

KPANRBD1051



Appendix

Electrical Downtilt: Angle in the antenna's elevation pattern in which the maximum gain occurs.

Gain: Antenna's average gain.

Front to Back Ratio @ 180°±30°: Average difference between the antenna's maximum gain and the maximum gain in the antenna's back lobe over ±30° angles.

Cross-polarization Ratio (dB): Typical difference between the co-polarization and cross-polarization gain across the sector's 3 dB Beam Width.

Dedicated to serving the needs of the Wireless Internet Service Provider (WISP) market, KP Performance Antennas offers purpose built products that reliably perform in the field. KP Performance Antennas product line consists of Yagi, Grid, Omni, Dish and other style antennas that operate in the 900 MHz, 2.4 GHz, 3 GHz, and 5 GHz frequencies.

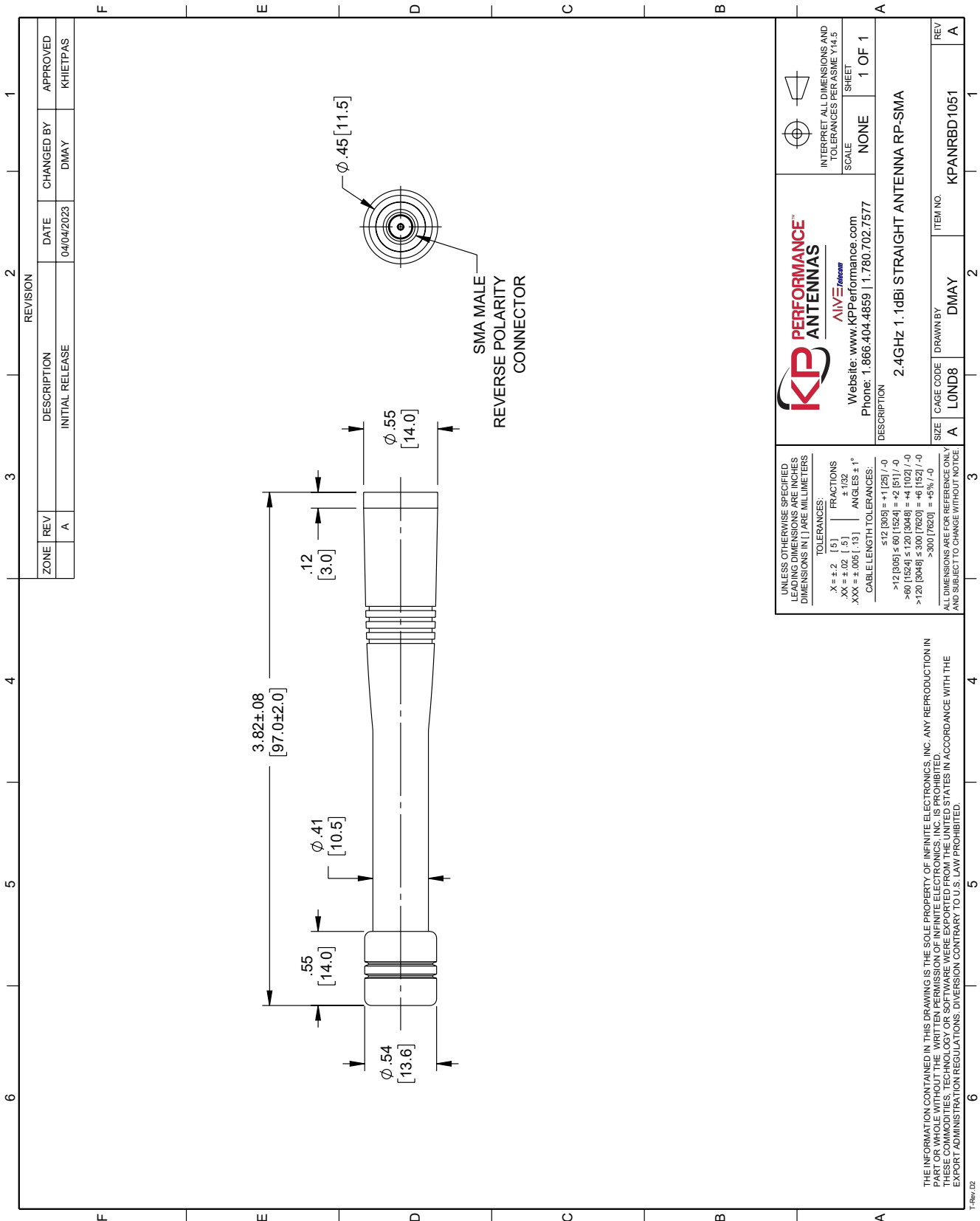
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4 GHz to 2.5 GHz Concave Shaped Antenna, Dipole, RP SMA Male Connector, 2 dBi Gain KPANRBD1051](#)

URL: <https://www.kpperformance.com/2.4-ghz-to-2.5-ghz-antenna-straight-angle-sma-male-reverse-polarity-connector-2-dbi-gain-kpan-rbd1051-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. KP Performance reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. KP Performance does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and KP Performance does not assume liability arising out of the use of any part or document.

2.4 GHz to 2.5 GHz Concave Shaped Antenna, Dipole, RP SMA Male Connector, 2 dBi Gain

KPANRBD1051 CAD Drawing



ZONE		REV		DESCRIPTION		DATE		CHANGED BY		APPROVED	
	A			INITIAL RELEASE		04/04/2023		DMAY			KHIETPAS

REVISION	
1	

KP PERFORMANCE™ ANTENNAS
 AIVE™ *Antenna*

Website: www.kpperformance.com
 Phone: 1.866.404.4859 | 1.780.702.7577

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5
 SCALE NONE
 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS
 TOLERANCES:
 X = ±.2 [5] FRACTIONS
 .XX = ±.02 [5] ANGLES ±1°
 XXX = ±.005 [13]
 CABLE LENGTH TOLERANCES:
 ≤12 [305] = ±1 [25] / -0
 >12 [305] ≤ 60 [1524] = ±2 [51] / -0
 >60 [1524] ≤ 120 [3048] = ±4 [102] / -0
 >120 [3048] ≤ 300 [7620] = ±6 [152] / -0
 >300 [7620] = ±5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE

DESCRIPTION: 2.4GHz 1.1dBi STRAIGHT ANTENNA RP-SMA

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	LOND8	DMAY	KPANRBD1051

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

T-Rev: 02