

## Series 2000 Antennas

### Description

These antenna products connect to Radio Frequency Modules (RFM) to form the interface to the low frequency (134.2 kHz) transponders. In combination with RFMs they transmit energy and signals to the transponder and receive the reply.

Antennas can be split into two types: ferrite stick antennas and gate antennas. There are six standard antennas available for use with low frequency systems. They are: two standard stick antennas with 1 or 3 meter cable length, a stick antenna specially designed for use with the Mini-RFM; and three gate antennas (small, medium and large). Each antenna is capable of creating a specific size and shape of read zone to meet the requirements of the target application.

In general the gate antennas create a large read zone including greater read distance, while the stick antennas provide a more focused read zone and an ability to discriminate between transponders.



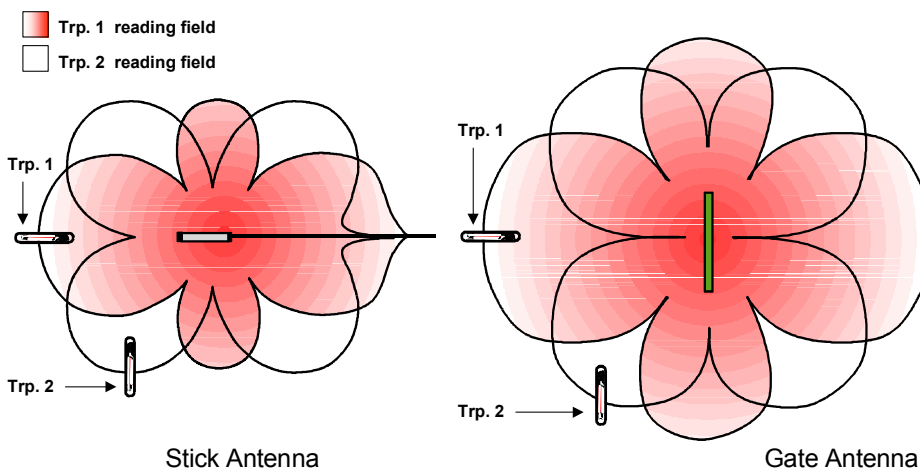
### Gate Antennas – Specifications:

Part Number	RI-ANT-G01E	RI-ANT-G02E	RI-ANT-G04E
Inductance	Typically 27 $\mu$ H @ 134.2 kHz	Typically 27 $\mu$ H @ 134.2 kHz	Typically 26 $\mu$ H @ 134.2 kHz
Operating Temperature	-30 to +60 °C	-30 to +60 °C	-30 to +60 °C
Storage Temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Protection Class	IP 65	IP 65	IP 44
Vibration	Mil-Std--810E, Test 514.4 (Category 1, Procedure 1; Basic transportation)		
Case Material	UVSHIPS (UV Stabilized High Impact Polystyrol)		
Dimensions (mm)	715 $\pm$ 5 x 270 $\pm$ 3 x 25 $\pm$ 1	200 $\pm$ 3 x 200 $\pm$ 3 x 25 $\pm$ 1	1018 $\pm$ 5 x 518 $\pm$ 5 x 47 $\pm$ 5
Weight	Typically 745 g	Typically 425 g	Typically 2500 g
Cable Length	1 m	1 m	-
Connection Terminals	Spade/Tongue, stud hole 3.5 mm, width 7.5 mm		¼ inch push-on (automotive type)
Mounting	Use non-metallic clamps, standard screws and washers through 6.5mm pre-drilled holes, so that the screw hole is flush with the mounting. Mounting material is not supplied with the antenna.		Suitable for pole or wall

## Stick Antennas – Specifications:

Part Number	RI-ANT-S01C	RI-ANT-S02C	RI-ANT-P02A (for RI-RFM-003B)
Inductance	Typically 27 $\mu$ H @ 134.2 kHz	Typically 27 $\mu$ H @ 134.2 kHz	Typically 116 $\mu$ H @ 134.2 kHz
Operating Temperature	-30 to +70 °C	-30 to +70 °C	-30 to +70 °C
Storage Temperature	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Protection Class	IP 66	IP 66	IP 65
Vibration	Mil-Std—810E, Test 514.4 (Category 1, Procedure 1; Basic transportation)		
Case Material	Glass reinforced epoxy (grey)		Glass reinforced epoxy (black)
Dimensions (mm)	140 $\pm$ 2 x 21 $\pm$ 2 (dia.)	140 $\pm$ 2 x 21 $\pm$ 2 (dia.)	133 $\pm$ 1 x 21.3 $\pm$ 1 (dia.)
Weight	Typically 134 g	Typically 185 g	Typically 105 g
Cable Length	1 m	3 m	0.1 m
Connection Terminals	Ring lugs: 3.5 mm inside diameter 7.5 mm outside diameter	Ring lugs: 3.5 mm inside diameter 7.5 mm outside diameter	Ring lugs: 2.8 mm inside diameter 6.0 mm outside diameter
Mounting	Use non-metal clamps. Mounting material is not supplied with the antenna.		

### Readout Pattern of Ferrite Rod (Stick) and Gate Antennas



For more information, contact the sales office or distributor nearest you. This contact information can be found on our web site at: <http://www.ti-rfid.com>

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