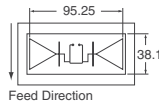




This inlay is designed for ease of integration in the smart label conversion process. Gen II products are based on the EPCglobal™ Generation II specification with 96 bits of user programmable EPC™ memory field with read, write, and lock capabilities. 100% tested inlays.



- Features:**
- Operating Frequency: 860 – 960MHz
  - Data Retention @ 25°C: 2 years
  - Write/Erase Cycle @ 25°C: 1,000

Antenna Size Inch (mm)	Digi-Key Part No.	Cut Tape Price Each			Texas Instruments Part No.
		1	25	100	
3.5 x 1 (88.90 x 25.40)	481-1078-1-ND	1.25	.96	.85	RI-UHF-00C01-03
	481-1078-2-ND	3654.00/10,000			RI-UHF-00C01-03
9.10 x 4.10 (231.14 x 104.14)	481-1115-1-ND	.55	.38	.33	RI-UHF-STRAP-08
	481-1115-2-ND	4900.00/40,000			RI-UHF-STRAP-08

## Encapsulated Transponder 13.56MHz

Allows for advanced solutions in demanding supply chain management applications such as laundry tracking. A ruggedized transponder that can withstand harsh environments.

- Specifications:**
- Typical Programming Cycles (@ 25°C): 100,000
  - Memory: 256 bits
  - Data Retention Times (@ 25°C): 10 years
  - Dimensions: 22 ± 0.2mm x 3 ± 0.2mm
  - Weight: 2.1 ± 0.2 grams
  - Case Material: PPS, Black
  - Protection Class: IP 68
  - Operating Temperature: -40°C – 90°C

481-1081-ND (Texas Instruments # RF-HDT-DVBE-NO) ..... \$2.24

## Transponder Sheeting

This silicone sheeting can be applied to protect 32mm x 3.85mm glass. Transponders for shock intensive applications like sports timing, key-fobs, and vehicle tracking.

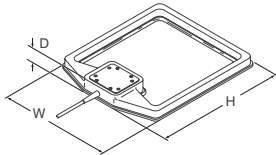
- Specifications:**
- Usable For: 32mm TI-RFid Glass Transponder
  - Material: Silicone
  - Color: Transparent
  - Operating Temperature: -40°C – 85°C
  - Dimension: Diameter 6mm ± 0.2mm x 35 ± 1mm

481-1024-ND (Texas Instruments # RI-ACC-SHT3-00) ..... \$44

## HF Antenna 13.56MHz Series 6000 Gate Antenna

This antenna is a single-loop transmit/receive antenna with preset matching electronics for a transmitter frequency of 13.56MHz.

- Specifications:**
- Impedance: 50Ω ± 10Ω
  - Connector: SMA male (50Ω)
  - Cable: Type: RG58; Length: 3.6m ± 0.1m



Operating Temp. (°C)	Dimensions H x W x D mm	RF Power (Max.)	Digi-Key Part No.	Price Each	Texas Instruments Part No.
-25 – 55	337 x 322 x 38	8W	481-1051-ND	473.85	RI-ANT-T01A-00
-25 – 55	851 x 620 x 38	10W	481-1058-ND	955.50	RR-IDISC-ANT8-6-B

## HF Antenna 13.56MHz

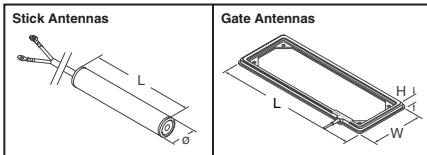
The elegant pad-antenna is perfectly suitable for desk applications with a reading range of up to 30cm. File and document tracking as well as the registration of rental goods during distribution and return are only two out of many possible applications.

- Specifications:**
- Maximum RF Power: 1W
  - Connector: SMA-plug (50Ω)
  - Operating Temperature: 0°C – 55°C
  - Dimensions: 337mm x 237mm x 8.3mm

481-1056-ND (Texas Instruments # RR-IDISC-ANT34-24) ..... \$237.80

## LF Antennas

### 134.2kHz Series 2000

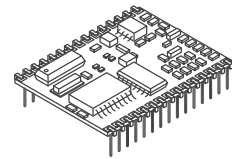


Inductance	Operating Temp. (°C)	Dimensions L x W x H mm	Cable Length (m)	Digi-Key Part No.	Price Each	Texas Instruments Part No.
<b>Stick Antennas</b>						
27µH @ 134.2kHz	-30 – 70	140 x Ø21	1	481-1040-ND	116.20	RI-ANT-S01C-00
27µH @ 134.2kHz		140 x Ø21	1	481-1120-ND <b>NEW!</b>	145.25	RI-ANT-S01C-30
27µH @ 134.2kHz		140 x Ø21	3	481-1121-ND <b>NEW!</b>	162.68	RI-ANT-S02C-30
116µH @ 134.2kHz		133 x Ø21.3	0.1	481-1119-ND <b>NEW!</b>	103.75	RI-ANT-P02A-30
<b>Gate Antennas</b>						
27µH @ 134.2kHz	-30 – 60	200 x 200 x 25	1	481-1043-ND	181.25	RI-ANT-G02E-30
27µH @ 134.2kHz		715 x 270 x 25	1	481-1044-ND	181.25	RI-ANT-G01E-30
26µH @ 134.2kHz		1018 x 518 x 47	—	481-1118-ND <b>NEW!</b>	362.50	RI-ANT-G04E-30

◆ RoHS Compliant

## Readers/Modules Series 2000 LF Micro Reader

The Series 2000 Micro Reader is an intelligent module that provides all RF and control functions in order to communicate with 134.2kHz HDX/FSK transponders and a host application. It is designed as a 30-pin dual-in-line printed circuit board. The Series 2000 Micro Reader is equipped with a serial communication interface and works together with a 47µH low-Q antenna that eliminates the need to tune the system to resonance.



- Specifications:**
- Operating Temperature: -20°C – 50°C
  - RF Transmit Frequency: 134.2kHz
  - Power Supply: 5VDC, regulated at 100mA
  - Communications Interface: Serial Communications Interface (SCI)
  - Antenna: 47µH
  - Transponder Types: 134.2kHz HDX/FSK
  - Dimensions (mm): 38.3 x 29.3 x 13.5

481-1029-ND (Texas Instruments # RI-STU-MRD1-30) ..... \$102.60

## Series 2000 LF Control Module

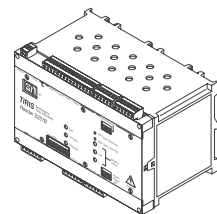
The Series 2000 Control Module is the interface between the TI-RFid Radio Frequency Module RI-RFM-104B, RI-RFM-007B or RI-RFM-008B and the Host. It decodes the received RF signals into the transponder's identification number, checks the validity and handles the conversion to a standard serial interface protocol. In addition it can store up to 909 reading transactions into the buffer. It is offered with two different serial interfaces, the RI-CTL-MB2A for point-to-point communication via an RS232 interface and the RI-CTI-MB6A for point-to-multipoint communication via RS422/485 interface. It has two open collector outputs and eight configurable digital input/outputs that can be defined by the user.

- Specifications:**
- Operating Temperature: 0°C – 70°C
  - Power Supply: 7 – 25VDC, regulated
  - Communication Interface: RS232 (RI-CTL-MB2A-02) RS422/485 (RI-CTL-MB6A-02)
  - Dimensions (mm): 93 x 82 x 33

481-1122-ND **NEW!** (Texas Instruments # RI-CTL-MB2B-30) RS232 – RoHS Compliant ..... \$261.00

## Series 2000 LF Reader

The Series 2000 Reader S251B provides all RF and control functions to communicate with 134.2kHz HDX/FSK transponders. It sends an energizing signal to the transponder, modulates the RF signal to send data to the transponder, decodes and checks the received transponder data and transmits it via a standard serial interface (RS232, RS422/485). The reader includes a Dynamic Auto Tuning (DAT) function that automatically tunes a standard antenna to resonance and keeps it tuned during operation.



- Specifications:**
- Operating Temperature: -20°C – 70°C
  - RF Transmit Frequency: 134.2kHz
  - Power Supply: 10 – 24VDC, regulated
  - Communications Interface: RS232, RS422/485
  - Antenna Tuning Range: 26 – 27.9µH (Dynamic Auto Tuning)
  - Transponder Type: 134.2kHz HDX/FSK
  - Dimensions (mm): 200 x 120 x 120

481-1127-ND **NEW!** (Texas Instruments # RI-STU-251B-30) – RoHS Compliant ..... \$734.50

## High Performance LF Radio Frequency Modules

**Features: Common:**

- Variable power supply range
- Synchronization control in multi-reader arrays
- High power output
- Remote Antenna RFM: (RI-RFM-008B-00) Supports antenna cable lengths up to 120 meters
- Capacitive and inductive tuning to resonance

- Specifications:**
- Operating Temperature: -25°C – 70°C
  - Power Supply: 7 – 24VDC regulated (If switching power supply is used, the frequency must be > 200kHz)
  - RF Transmit Power: To be set by pulse width to comply with PTT/FCC regulations
  - RF Transmit Frequency: 134.2kHz
  - Antenna Tuning Range: 26 – 27.9µH (8 – 80µH including cable for RI-ACC-008B-00)
  - Dimensions (mm): 89 x 93 x 44 (115 x 70 x 27 for RI-ACC-008B-00)

**Recommended Accessories:** Digital Reader Module RI-CTL-010A (for RI-RFM-007B-00, RI-RFM-007B-30 and RI-RFM-008B-00) Antenna Tuning Module RI-ACC-008B (for RI-RFM-008B-00)

481-1125-ND **NEW!** (Texas Instruments # RI-RFM-007B-30) Standard RFM – RoHS Compliant.. \$291.81

481-1034-ND (Texas Instruments # RI-ACC-008B-00) Antenna Tuning Module ..... \$94.62

## Series 2000 LF Mini Radio Frequency Module

The Series 2000 Mini Radio Frequency Module is the interface between a 134.2kHz HDX/FSK transponder and the Data Processing Unit. It sends an energizing signal to the transponder, modulates the RF signal to send data to the transponder, receives the identification signal and processes it for digital decoding. The small size and low supply voltage make the Mini RF module well suited for portable read/write units.

- Specifications:**
- Operating Temperature: 0°C – 50°C
  - Operating Frequency: 134.2kHz
  - Power Supply: 4.5 – 6 VDC, regulated; maximum 1.2A
  - Antenna: Inductivity: 115 – 117µH
  - Antenna Recommended: RI-ANT-P02A
  - Dimensions (mm): 60.2 x 55.1 x 11.5

481-1030-ND (Texas Instruments # RI-RFM-003B-00) ..... \$174.00

## Series 2000 LF Antenna Tuning Indicator

Antenna Tuning Indicator makes the resonance tuning of the TI-RFid's Standard RFM and the High Performance RFM easy. LEDs indicate in which direction the tuning core should be turned (RI-RFM-104B) or whether tuning capacitance needs to be added or removed (RI-RFM-007B) to bring a connected antenna to resonance.

- Specifications:**
- Operating Frequency: 134.2kHz
  - Resonance Tuning Accuracy (Green LED on): ±600Hz
  - Operation with RF Modules: RI-RFM-104B, RI-RFM-007B
  - Operation with Reader: RI-STU-MB2A, RI-STU-MB6A
  - Operating Temperature: 0°C – 50°C
  - Dimensions: Housing (mm): 72 x 50 x 26, Cable Length (mm): 235 ±5

481-1025-ND (Texas Instruments # RI-ACC-AT12-00) ..... \$141.10

## HF 8X Antenna Multiplexer

The 8 times multiplexer facilitates switching between RFid antennas with an operating frequency of 13.56 MHz. With one multiplexer several single antennas and gate solutions (existing of base and complementary antennas) can be operated with only one reader. Any of the eight multiplexers outputs can be assigned to both inputs by jumper adjustment. The multiplexer is controlled either via a digital input or the antenna cable connected with the reader.

- Specifications:**
- Operating Temperature: -25°C – 65°C
  - Operating Frequency: 13.56MHz
  - Power Supply: 12 – 24 VDC
  - Maximum Allowed Switching Capacity: 10W
  - RF Connections: 2x Input/8x Output SMA Socket (50Ω)
  - Dimensions (mm): 182 x 110 x 90

481-1054-ND (Texas Instruments # RR-IDISC-ANTMUX-A) ..... \$1517.25

(Continued)

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