

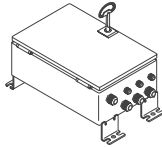
Series 6350 HF Midrange Reader Module



Specifications: • Operating Frequency: 13.56MHz • Supported Transponders: Tag-it™ HF, Tag-it™ HF-I and ISO 15693 compliant transponders • Supply Voltage: 5VDC • Transmitter Power: 120mW into 50Ω • Antenna Connection: 2 pins of 16-pin header connector • Antenna Impedance: 50Ω @ 13.56MHz • Communication Interface: RS232 • Operating Temperature: -20°C ~ 70°C • Dimensions (mm): 109.22 x 68.58 x 10.2

481-1102-ND (Texas Instruments # RI-STU-TRDC-30) 110.53

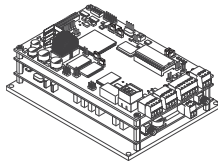
Series 6550 HF Long Range Reader (Housed)



Specifications: • Operating Frequency: 13.56MHz • Supported Transponders: Tag-it™ HF, Tag-it™ HF-I, ISO 15693 compliant Transponders • Power Supply: 100-120V/60Hz or 220-240V/50Hz • Transmitter Power: 0.5W ~ 10W ±1dB • Antenna Connection: 2 x SMA Female • Antenna Impedance: 50Ω at 13.56MHz • Communication Interfaces: RS232 or RS485 • Operating Temperature: -20°C ~ 55°C • Dimensions (mm): 300 x 200 x 160

481-1050-ND (Texas Instruments # RI-STU-655A) 1342.19

Series 6500 HF Long Range Reader Module



Specifications: • Operating Frequency: 13.56MHz • Supported Transponders: Tag-it™ HF, Tag-it™ HF-I, ISO 15693 compliant Transponders • Supply Voltage: 24VDC • Transmitter Power: 0.5W ~ 10W ±1dB • Antenna Connection: 2 x SMA female • Antenna Impedance: 50Ω at 13.56MHz • Communications Interfaces: RS232 or RS485 • Operating Temperature: -20°C ~ 65°C • Dimensions (mm): 160 x 120 x 67

481-1049-ND (Texas Instruments # RI-STU-650A-00) 1018.22

Series 6700 HF Multi-Protocol Transceiver IC

The S6700 Multi Protocol Transceiver IC enables a broad range of 13.56MHz RFID interrogator designs for portable and stationary readers. This low power consumption device supports multiple RF communication protocols, minimizes onboard power requirements and reduces parts count in a final reader product.

Specifications: • Operating Frequency: 13.56MHz • Supported RF Communication Protocols: Tag-it™ HF, ISO 15693-2 and ISO 14443-2 • Operating Voltage: 3.3V ~ 5VDC • Transmitter Power: 200mW at 5VDC • Antenna Impedance: 50Ω at 13.56MHz • Communication Interface: Serial interface • Operating Temperature: -40°C ~ 85°C • Package: SSOP 20

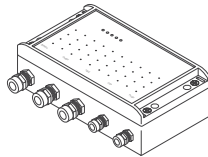
Digi-Key Part No.	Cut Tape Price Each		Digi-Key Part No.	Tape & Reel Pricing	Texas Instruments Part No.
	1	100		1,500	
481-1046-1-ND	11.46	9.83	8.19	4354.77M	RI-R6C-001A-03

Mid-Range Reader

This reader has an aluminum housing with the protection class of IP 54 which protects against dust, dirt and syringe water. Transmitting power of 1.7 watts and read ranges of up to 70cm. The reader has several I/Os and has the serial interfaces RS232 and RS485 which can be adjusted by the software.

Specifications:

- Operating Frequency: 13.56MHz
- Dimensions (L x W x H): 200 x 110 x 60mm
- Antenna Connection: SMA-plug (50Ω)
- Outputs: 2 Optocouplers, 24VDC/30mA; 1 Relay, 24VDC/2A
- Inputs: 2 Optocouplers, Maximum 24VDC/20mA
- Interfaces: RS232 and RS485 (adjustable)
- Signal Generator: 5 LED
- Operation Temperature: -20°C ~ 60°C
- Storage Temperature: -25°C ~ 85°C



481-1064-ND (Texas Instruments # RR-IDISC-MR200-A) 1032.10

S4100 Multi-Function Reader Module



Texas Instrument's RFID S4100 Multi-Function Reader communicates with transponders and vicinity/proximity cards compliant with ISO/IEC 14443 A/B and ISO/IEC 15693. It also supports Texas Instrument's Low Frequency DST, Read-Only, and Read-Write Transponder at 134.2kHz, along with Tag-It High Frequency Transponder at 13.56MHz. This is accomplished through dedicated RF Analog Front End (AFE) sections controlled by a high-performance 8-bit Advanced RISC microcontroller with a Harvard architecture, onboard FLASH, EEPROM and SRAM. The power and flexibility of this platform offer a scalable solution that can be fitted to a broad range of applications.

Features: • USART for I/O communication • Three general purpose I/O lines • Dual frequency operation - 134.4kHz and 13.56MHz • Multi-Protocol - TI RFID LF products, TI RFID HF Tag-It, ISO 15693 and ISO14443 A/B • Custom firmware downloadable • Scalability/Modular architecture • Power On-Reset operation • Firmware upgradeable **Specifications:** • Transmitter Power (HF): 200mW • Transmitter Peak-Current (LF): 1.1 Amps peak • Antenna Impedance (HF): 50Ω @ 13.56MHz • Antenna Impedance (LF): 440μH (Approximately) • Dimensions: 69mm x 38mm x 10mm • Supply Voltage: 4.5V minimum 5.5V maximum • Operating Temperature: -20°C ~ 70°C • Optional interface cable is HF-06U-12-ND; mating connector is WM5701CT-ND

481-1052-ND (Texas Instruments # RF-MGR-MNMM-N3) 66.21

S4100 Multi-Function Reader Evaluation Kit

The kit enables users to experience the MFR and its functions in a PC-based environment. The Base application allows users to execute standard read/write/lock commands, as well as experiment with anti-collision and multiple-technology environments.

With standard RS-232 and RS-485 serial I/O ports, the S4100 MFR is plug-and-play solution, ideal for logical access applications, as well as financial, ticketing, loyalty, access control, and others. The kit includes a platform independent software API, which facilitates development of PC-based software. This API is cross-compatible with other HF readers in the TI portfolio, including the S6500 Long-Range reader and the S6350 Mid-Range reader.

Features: • Dual Frequency: 134.2kHz, 13.56MHz • Multi-Protocol: TI RFID LF Products, TI RFID HF Tag-It, ISO 15693, ISO 14443 A/B • 2 Serial I/O Ports: RS-232, RS-485 • Software Development API Included • Supply Voltage: 9VDC

Kit Includes: • MFR-based Housed Reader • Universal power supply • Global power adapters • RS-232 Communications cable • Sample HF and LF Transponders • Spare MFR module • Software Source CD: Demo Software, Software Development API, Reference Manuals, additional Resources • Getting Started Guide

481-1061-ND (Texas Instruments #RX-MFR-RNLK-00) 435.60

TRF7960 Evaluation Module

The TRF7960 evaluation module (EVM) helps designers evaluate the performance of the TRF7960 multiple protocol RFID transceiver. The device incorporates an analog front end, protocol handling, framing, error checking, and multiple integrated voltage regulators with other features that allow the reader to be customized/configure able for the end application.

TRF7960 Features: • Support for the ISO 15693, 180003-1, and Tag-it™ standards • Support for both the ISO 14443A standard and the ISO 14443B standard (up to layer 4) • Self contained — has an on-board 13.56MHz loop antenna and interface • Communication with host software on a Windows-based PC through a standard USB cable • Protocol indication LEDs — (stand alone mode) required to indicate detection of a tag

Hardware Features: • TRF7961 supports 180003-1 and Tag-it™ standards • Supports both parallel and SPI communication interfaces between the TRF7960 and the MSP430 on-board (configure able using an on-board jumper setting) • A faster and lower-power MSP430 on board. The TRF7960EVM uses the state-of-the-art MSP430F2370 with maximum speeds up to 16MHz and is available in a tiny 40-pin QFN package • Power-selection jumper

Description	Digi-Key Part No.	Price Each			Tape and Reel†		TI Part No.
		1	25	100	Qty.	Price	
Evaluation Module	481-1106-ND	148.10	—	—	—	—	TRF7960EVM
Front End	481-1105-1-ND‡	10.96	9.39	7.83	250	1251.62	TRF7961RHBT
Front End	481-1107-1-ND‡	12.35	10.59	8.83	3,000	4498.66M	TRF7960RHBR

† For Tape and Reel part number, change 1-ND to 2-ND ‡ Cut Tape ◆ RoHS Compliant

LF RFID-Evaluation Kit

This Low Frequency (134.2kHz) Evaluation Kit includes the Series 2000 Standard Reader with RS232 Interface, a stick antenna, a variety of transponder packages for Read Only, Read/Write, Multi-page or Selective Addressable applications, plus demonstration software that runs on your desktop computer to allow you to experiment with all the features of the RFID system.

Contents: • S2000 Reader with RS232 Interface • Stick Antenna • Set of R/O, R/W, M/P Transponders in various packages • PC Interface Cable • CD with User Documentation and Demo Software • Getting Started Guide • 9V Power Supply Input 100V-240V, 1.5A with various main power connectors for international use

481-1038-ND (Texas Instruments # RI-K2A-001A-01) 581.96

LF Base Station IC

The LF base station allows efficient development and production of RFID readers for vehicle immobilizers. This base station IC drives the antenna of a TI-RFID transponder system to send data modulated on the antenna signal, and to detect and demodulate the response from the transponder. It also allows minimizing the external component count.

Features: • Self-adapting to transponders with a resonance frequency between 129kHz ~ 140kHz • Power management for 5V operation • Over-current protection of antenna driver

Specifications: • Operating Frequency: Typical 134.2kHz, FSK • Operating Voltage: 4.5 ~ 5.5VDC • Operating Temperature: -40°C ~ 85°C • Package/Pin Count: SO16 (10 x 6mm)

Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel	Texas Instruments Part No.
	1	25	100		Pricing	
481-1063-1-ND	7.65	6.56	5.47	481-1063-2-ND	2786.21M	RI-TMS3705ADR

LF Micro Evaluation Kit

This easy-to-use kit gives the opportunity to explore the capabilities of Texas Instruments 134.2kHz Radio Frequency Identification (RFID) technology TIRIS™. The core of this LF Evaluation Kit is the CE and FCC approved Series 2000 Micro Reader which is mounted on an Interface Board combined with an antenna. Various transponder samples and demonstration software that runs on your desktop computer allow you to experiment with all the features of the RFID system.

Contents: • S2000 Micro Reader RI-STU-MRD1 mounted on an Interface Board with RS232 IF Port, Power Connector and Antenna Connector • Antenna • 9-Pin D-Sub Cable (female-female connector) • Various Transponder Samples • CD with User Documentation and Demonstration Software • Getting Started Guide • 9V Power Supply Input 100V-240V, 1.5A with various main power connectors for international use

481-1039-ND (Texas Instruments # RI-K3A-001A-00) 217.80

TIRIS™ RF-Module for Automotive

RI-RFM-006A is a CMOS technology based RF-module IC which integrates all transmitter-receiver functions required for constructing a TIRIS Read-Write System into one single chip. RI-RFM-006A consists of a transmitter signal control logic which generates signals for transmission and for sending the data you wrote to a remote TIRIS transponder, and a receiver amplifies and demodulates frequency shift keyed (FSK) signals received from this transponder.

Features: • Operating supply voltage: 4.5V ~ 5.5V • Operating temperature range: -40°C ~ 85°C • Package: 16-pin SOP • Structure: CMOS process

Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel	Texas Instruments Part No.
	1	25	100		Pricing	
481-1117-1-ND	9.00	7.71	6.43	481-1117-2-ND	3276.80M	CF45538NSRG4

Free shipping on orders over £50! All prices are in British pound sterling and include duties.

TOSHIBA RF Wireless Evaluation Kit



The Evaluation kits allow for a detailed evaluation of the Transceivers and Receiver. They enable testing of the device's RF performance and require no additional support circuitry. The RF input uses a 50Ω matching network and an SMA connector for convenient connection to test equipment. The EV kit can also directly interface to the user's embedded design for easy data decoding. For easy implementation into the customer's design, the kits also feature a proven PC board layout, which can be easily duplicated for quicker time to market.

TA31275EVKIT Contents: • 1 TA31275M receiver module • 1 TA32305M transceiver module • 2 Antennas • CD ROM with all design and application documentation
TA32305EVKIT Contents: • 2 TA32305M transceiver modules • 2 Antennas • CD ROM with all design and application documentation

Frequency	Digi-Key Part No.	Price Each	Toshiba Part No.
315MHz	TA31275EVKIT-315-ND	123.38	TA31275EVKIT-315
433MHz	TA31275EVKIT-433-ND	123.38	TA31275EVKIT-433
315MHz	TA32305EVKIT-315-ND	144.44	TA32305EVKIT-315
433MHz	TA32305EVKIT-433-ND	144.44	TA32305EVKIT-433

Transceivers and Receiver

Function	Frequency	Supply Voltage (V)	Package	Digi-Key Part No.	Cut Tape Pricing		Digi-Key Part No.	T & R Pricing 2,000	Toshiba Part No.
					1	10			
Transceiver	240 - 450MHz	2.7 - 3.3 2.2 - 5.5	36-QON 30-SSOP	TB32301AFLCT-ND	3.67	29.40	TB32301AFLTR-ND	2082.72/M	TB32301AFL
				TA32305FNGCT-ND	2.81	22.48	TA32305FNGTR-ND	1592.12/M	TA32305FNG
Receiver	100 - 450MHz	2.4 - 5.5	24-SSOP	TA31275FNGCT-ND	1.80	14.37	TA31275FNGTR-ND	934.36/M	TA31275FNG

◆ RoHS Compliant



TriQuint SEMICONDUCTOR RF Amplifiers, SAW Filters and RF Components

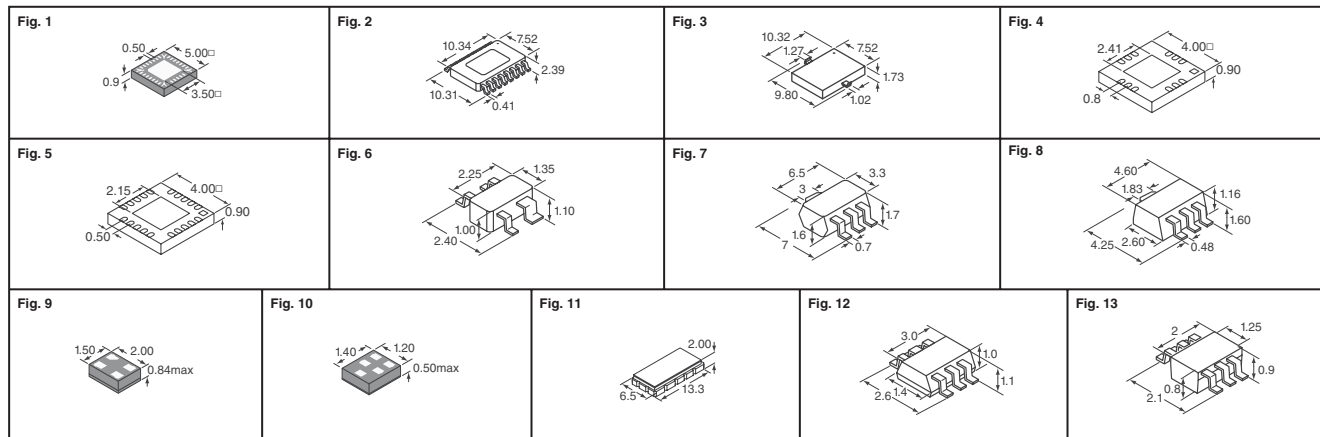


Fig.	Frequency Range (GHz)	P1dB/OIP3 (dBm)†	Gain (dB)	Voltage/Current (V/mA)	Description	Package Type	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel		TriQuint Part No.
Amplifiers up to 1W														
Amplifiers 1W - 4W														
Amplifiers 4W and up														
Amplifiers - Gain Block														
Low Noise Amplifiers														
Discrete Transistors														
1	2.3 - 2.8 3.3 - 3.8	30 / 40 30 / 42	28 24	6 / 710 6 / 770	WiMAX Driver Amp., SB§ WiMAX Driver Amp.	28-QFN 28-QFN	779-1000-ND 779-1001-ND	7.72 7.72	5.13 5.13	3.86 3.86	— —	— —	— —	TGA2702-SM TGA2703-SM
2	0.04 - 1.0	31.5 / 55	12	12 / 510	CATV Ultra Linear HPA	16-SOIC	779-1011-1-ND	23.68	21.15	19.04	779-1011-2-ND	1,000	11833.79	TGA2801D-SG-T/R
3	3.5	37.5 / 49	11	8 / 750	5W HPA, HFET	2-SMD	779-1013-1-ND	26.93	24.05	21.65	779-1013-2-ND	500	5771.70	TGA2925-SG-T/R
4	11.0 - 17.0	17 / —	23	6 / 75	Driver Amp., SB§	12-QFN	779-1010-1-ND	25.21	22.51	20.26	779-1010-2-ND	500	5491.46	TGA2507-SM-T/R
5	0.04 - 1.0	27 / 46	20	8 / 350	CATV TIA/Gain Block, SB§	20-QFN	779-1012-1-ND	22.11	19.75	17.78	779-1012-2-ND	1,000	9478.66	TGA2803-SM-T/R
5	2.0 - 20	16 / —	17	5 / 75	LNA / AGC‡	12-QFN	779-1002-ND	80.22	53.27	40.12	—	—	—	TGA2513-SM
6	Up to 4.0	— / 13	17	3 / 30	LNA / Discrete	SC70-4	779-1006-1-ND	1.30	1.17	1.05	779-1006-2-ND	2,500	609.84/M	CFH800
7	DC - 2.5	26.5 / —	11	2.7 - 6 / 350	MESFET	SOT-223	779-1007-1-ND	4.07	3.63	3.27	779-1007-2-ND	1,000	2207.04	CLY5
8	DC - 5 DC - 4	27 / 40 30 / 44	19 18	8 / 100 8 / 200	0.5W HFET 1W HFET	SOT-89 SOT-89	779-1014-1-ND	7.52	6.72	6.05	779-1014-2-ND	500	1611.72	TGF2960-SD-T/R
							779-1015-1-ND	8.84	7.90	7.11	779-1015-2-ND	500	1894.86	TGF2961-SD-T/R

† Value is IIP3 for LNA Product ‡ Automatic Gain Control § Self Biased

Fig.	Frequency (MHz)	Bandwidth (MHz)	Typical Insertion Loss	I/O Configuration	Description	Package Type	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel		TriQuint Part No.
SAW Filters														
9	915	26	2.3	SE/SE	ISM 915MHz Band RF Filter	4-CSP	779-1003-1-ND	7.93	5.74	3.60	779-1003-2-ND	10,000	791.34/M	856327
10	2441	83.5	2	SE/SE	Bluetooth RF Filter	5-CSP	779-1004-1-ND	3.46	2.08	1.04	779-1004-2-ND	10,000	355.74/M	856539
11	70	3.5	7.25	SE/SE	Low Loss IF Filter	SMP-53	779-1016-1-ND	28.78	20.57	14.69	779-1016-2-ND	2,000	10724.47/M	854657
	70	7	8.5	SE/SE	Low Loss IF Filter	SMP-53	779-1017-1-ND	28.78	20.57	14.69	779-1017-2-ND	2,000	10724.47/M	854662
	70	14	12.5	SE/SE	Low Loss IF Filter	SMP-53	779-1018-1-ND	28.78	20.57	14.69	779-1018-2-ND	2,000	10724.47/M	854667
	70	28	17.6	SE/SE	Low Loss IF Filter	SMP-53	779-1019-1-ND	28.78	20.57	14.69	779-1019-2-ND	2,000	10724.47/M	854674
	140	6.85	5.5	SE/SE	Low Loss IF Filter	SMP-53	779-1020-1-ND	28.78	20.57	14.69	779-1020-2-ND	2,000	10724.47/M	854913
	140	32	11.5	SE/SE	Low Loss IF Filter	SMP-53	779-1022-1-ND	28.78	20.57	14.69	779-1022-2-ND	2,000	10724.47/M	854927

(Continued)

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

Free shipping on orders over £50! All prices are in British pound sterling and include duties.

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