19-5029; Rev 2; 6/11

EVALUATION KIT AVAILABLE

# ABRIDGED ////X/// AISG Integrated Transceiver

## **General Description**

**Applications** 

The MAX9947 is an AISG-compliant, fully integrated transceiver.

The MAX9947 receiver offers a typical dynamic range of 20dB and integrates a bandpass filter that operates in the 2.176MHz frequency with a narrow 200kHz bandwidth.

The MAX9947 transmitter integrates a bandpass filter that is compliant with the AISG spectrum emission profile. It can modulate OOK signals up to 115.2kbps. The output power can be varied with external resistors from +7dBm to +12dBm to compensate for loss in the external circuitry and cabling.

The MAX9947 also features a direction output to facilitate the RS-485 bus arbitration in tower-mounted equipment.

The MAX9947 is available in a small,  $3mm \times 3mm 16$ -pin TQFN and is rated for operation in the -40°C to +85°C temperature range.

Base Stations Tower Equipment

### **Features**

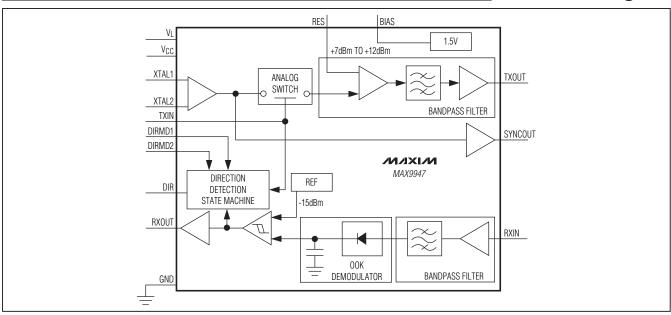
- Receiver Wide Input Dynamic Range -15dBm to +5dBm in 50Ω
- Variable Transmitter Output Level from +7dBm to +12dBm
- ♦ AISG-Compliant Output Emission Profile
- AutoDirection Output
- No Need of Microcontrollers to Handle Bus Arbitration in Tower-Mounted Equipment
- Supports All AISG Data Rates 9.6kbps 38.4kbps 115.2kbps
- Bandpass Filter Compliant with AISG Protocol Centered Around 2.176MHz
- ♦ 3.0V to 5.5V Voltage Supply
- Independent Logic Supply
- Small, 3mm x 3mm 16-Pin TQFN Package

#### **Ordering Information**

PART	TEMP RANGE	PIN-PACKAGE	TOP MARK
MAX9947ETE+	-40°C to +85°C	16 TQFN-EP*	AHF

+Denotes a lead(Pb)-free/RoHS-compliant package. \*EP = Exposed pad. Connect EP to GND to enhance thermal dissipation.

# \_Functional Diagram



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For pricing, delivery, and ordering information, please contact Maxim Direct at 1-888-629-4642, or visit Maxim's website at www.maxim-ic.com.