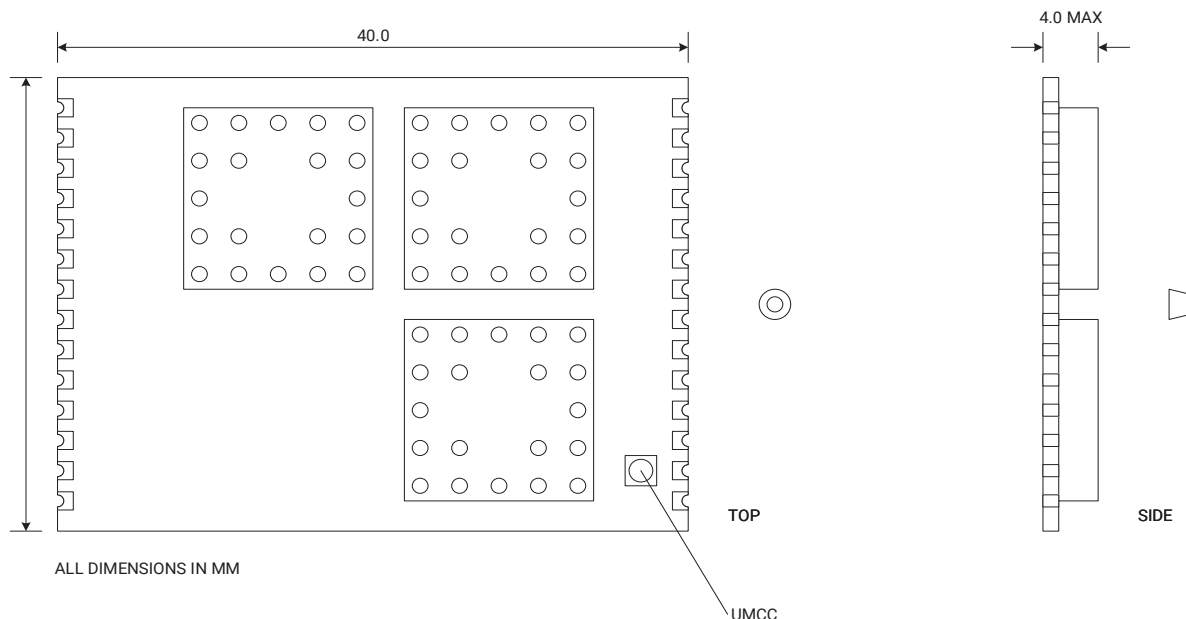


# M1483

## Iocast 800MHz Node Transceiver

### Preliminary Product Brief



### Overview

The **M1483 Node Transceiver** connects an OEM device to an Iocast network. It supports fixed and mobile nodes, bidirectional communications, and all **node availability** values. The M1483 enables a wide range of applications ranging from sensors requiring a multi-year battery life to mobile alerting units requiring sub-second latency.

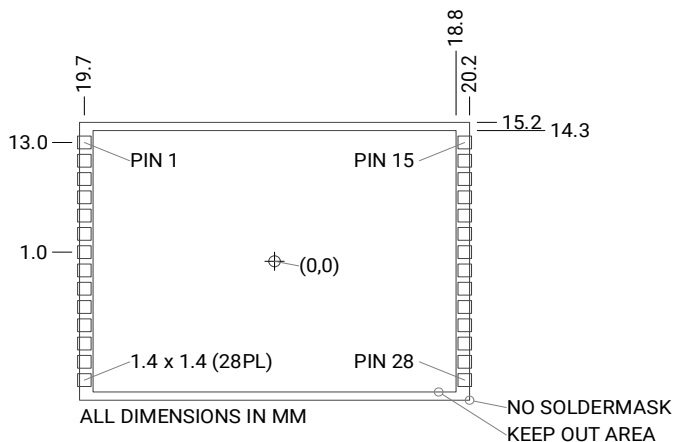
The M1483 is a complete Iocast node transceiver, soldering directly to a host PCB and interfacing with a local microcontroller using NXI. The unit requires a 1.8V logic interface, a 2.1 - 4.2 VDC supply, and an antenna. The M1483 autonomously performs all network related tasks and can roam between systems. Its RF and DSP performance enable sector connection and reliable communication even when the nearest base transceiver is 15-20 miles away.

For mission-critical IoT, the M1483 delivers high value, low energy consumption, and mission-critical reliability in urban, rural, and industrial environments.

### Applications

- Patient Monitoring and Clinical Alarms
- Public Safety Dispatch and Alerting
- Public Works and Utilities
- Fleet Vehicle and Asset Tracking
- Public Transportation Systems
- Perimeter Security
- Environmental and Water Monitoring
- Mining and Pipeline Management
- Oil Field Monitoring
- Radiation Monitoring
- Rail and Shipping Container Tracking
- Animal Tracking
- Agriculture

## PCB Footprint and Pinout



Pin	Name	Direction	Description
1	GND	GND	Ground
2	VCC	VCC	2.1 - 4.2 VDC
3	SDA	I/O	NXI I <sup>2</sup> C Data
4	SCL	I	NXI I <sup>2</sup> C Clock
5	CREQ	I	NXI Request
6	CACK	O	NXI Acknowledge
7	ATTN	O	NXI Attention
8	/RESET	I	NXI Module Reset
9	TMARK	O	NXI Time Mark
10	S1	O	Status Bit 0
11	S2	O	Status Bit 1
12	S3	O	Status Bit 2
13	VCC	VCC	2.1 - 4.2 VDC
14	GND	GND	Ground
15	GND	GND	Ground
16	VCC	VCC	2.1 - 4.2 VDC
17	VCC	VCC	2.1 - 4.2 VDC
18	N/C	N/C	No Internal Connection
19	N/C	N/C	No Internal Connection
20	N/C	N/C	No Internal Connection
21	N/C	N/C	No Internal Connection
22	N/C	N/C	No Internal Connection
23	N/C	N/C	No Internal Connection
24	N/C	N/C	No Internal Connection
25	GND	GND	Ground
26	GND	GND	Ground
27	ANT	I/O	Antenna
28	GND	GND	Ground

## Transmitter

Frequency Range: 806 to 815MHz  
 Emissions: 7K60FXD  
 Transmission Mask: Part 90  
 Power: Variable, +14dBm to +30dBm (at port)

## Receiver

Frequency: 851 to 860MHz  
 Selectivity 30dBc @ ±12.5KHz, Typical  
 Sensitivity: -120dBm

## Capabilities

8128 byte maximum datagram size  
 Precise network time (NXI TMARK ±21 μS)  
 Primary address plus 16 multicast addresses  
 Secure over-the-air configuration  
 Mobility and Secure Roaming

## Interface

Air: locast v3  
 Host: NXI v3 (1.8V CMOS)  
 Antenna: UMCC (EFJ 128-0711-201)

## Physical

Size: 30 x 40 x 4mm  
 Weight: 15g

## Electrical

VCC: 2.1 to 4.2VDC  
 Static Current: < 0.1 μA  
 Idle Current: 8 μA  
 Receive Current: 11mA  
 Transmit Current: 120mA - 490mA

## Environmental

Temperature: -40°C to +85°C  
 Humidity: 10 to 90% Non Condensing