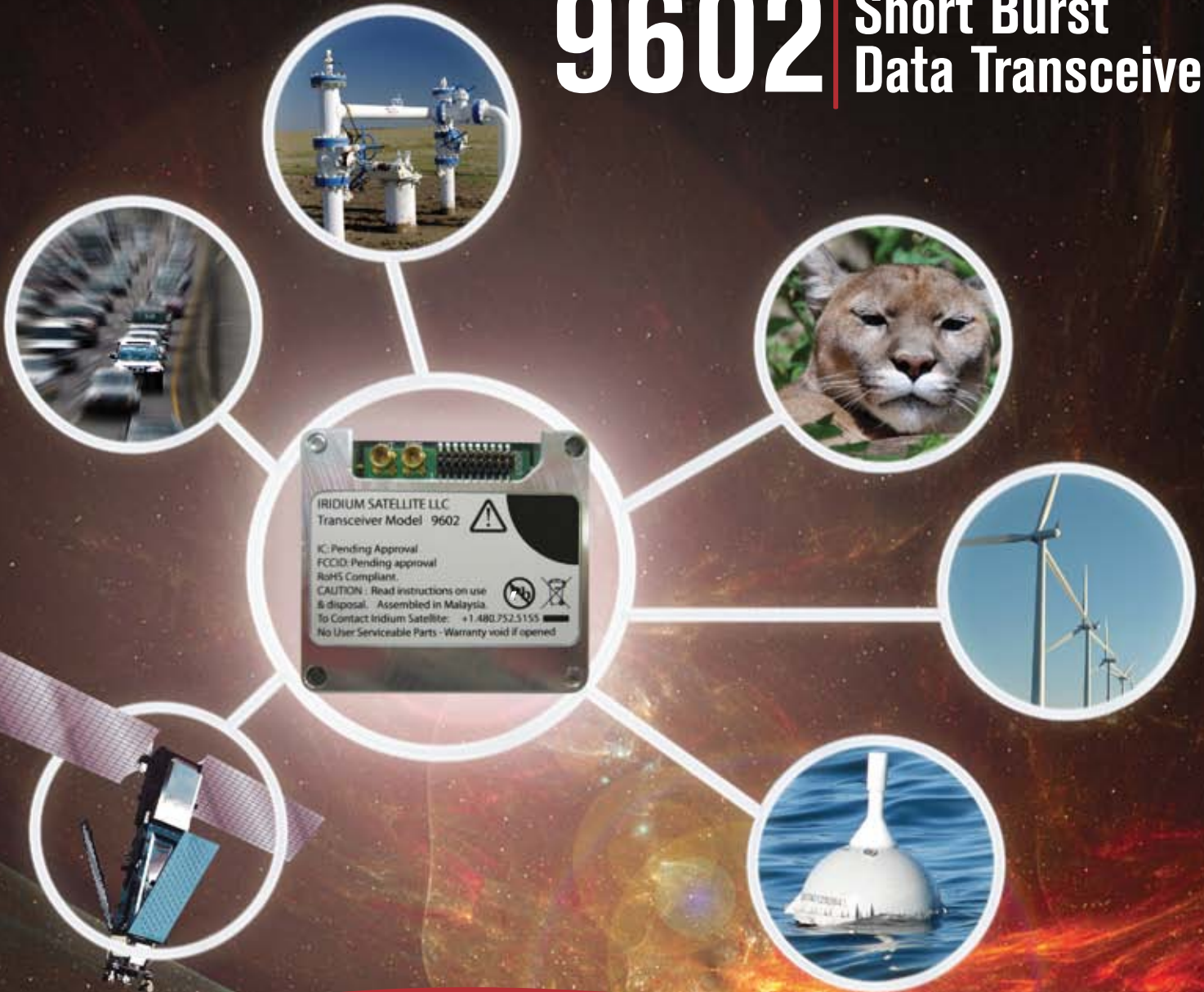


9602 | Short Burst Data Transceiver



9602 SBD Transceiver

The Iridium 9602 Short Burst Data Only Transceiver (9602) is designed to be integrated into a wireless data application with other host system hardware and software to produce a full solution. The 9602 is designed to meet the regulatory requirements for approval for FCC, Canada, and CE assuming an antenna with a gain of ~3 dBi and adequate shielding.

Key Features

- Single board transceiver
- Aluminum alloy casework with Alodine 2600 coating
- Small form factor
- GPS RF Pass-through



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9602

SBD TRANSCEIVER

Specifications

Mechanical Specification

Length	41.0 mm
Width	45.0 mm
Depth	13.0 mm
Weight (approximate)	30g

Thermal Shock	ENG0068-2-14:2000	Change of Temperature, -25°C to +70°C, 5 cycles of 1 hour each
Humidity	IEC60068-2-78:2002	Damp heat steady state 400C 93% RH for 4 days
Vibration	EN 60068-2-36:1996	0.96 m2/s3 from 5Hz to 20Hz 21Hz to 500Hz dropping -3dB per octave
Vibration	J1455 Society of Automotive Engineers	10-40Hz at 0.02g2/Hz 40-500Hz dropping 6dB per octave
Shock	ENG0068-2-27:1993	(NF c20-727)
Shock	J1455 Society of Automotive Engineers	Drop 1m onto concrete in 3 perpendicular orientations (3 drops). Also 10G shock over a period of 12ms

Multi-way user connector:	SAMTEC low-profile header FTSH-110-01-L-DV
RF antenna connector:	SAMTEC part number MMCX-P-P-H-ST-TH1
GPS RF pass-through connector:	MMCX-P-P-H-ST-TH1

Environmental Specification

Operating Temperature Range ¹	-40°C to + 85°C
Operating Humidity Range	≤ 75% RH
Storage Temperature Range	-40°C to + 85°C
Storage Humidity Range	≤ 93% RH

Electrical Specification

Parameter	Value
Supply Input Voltage Range	5.0V DC +/-0.5V
Supply Input Voltage Ripple	< 40 mV pp

Typical Power Consumption at +5.0 VDC

Parameter	Value
Idle Current (average*)	45mA
Idle Current (peak)	195mA
Transmit Current (peak)	1.5 A
Transmit Current (average*)	190mA
Receive Current (peak)	195mA
Receive Current (average*)	45mA
SBD message transfer - average current*	190 mA
SBD message transfer - average power*	≤ 1.0 W

* Note: The average power consumption will vary depending on the view of the

Antenna Specification

Impedance	50 Ohms nominal
Gain	3dBi
Polarization	RHCP
VSWR (maxi operational)	1.5 : 1

Radio Characteristics

Average Power during a transmit slot (max)	1.6 W
Receiver sensitivity (Typical level at module connector)	-117dBm
Max Cable loss permitted (Note 1)	2dB
Link Margin - Downlink (Note 2)	13dB
Link Margin - Uplink (Note 2)	7dB

Antenna Characteristics

Impedance	50 Ohms nominal
Gain	3dBi
Polarization	RHCP
VSWR (maximum operational)	1.5 : 1

General RF Parameters

Frequency Range:	1616 MHz to 1626.5 MHz
Duplexing Method:	TDD (Time Domain Duplex)
Input/Output Impedance:	50Ω
Multiplexing Method:	TDMA/FDMA



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