

SPECIFICATIONS

OUTLINE DRAWING

Frequency Specifications

	Value	Units
Frequency range	20-160	MHz
Frequency resolution (1)	0.1	Hz
Frequency stability	±2	ppm/deg C
Frequency preload time (2)	<10	µs
Frequency toggle time (3)	<20	ns

Amplitude Specifications

RF output power, nominal (4)	0.4	Watt
RF output gain adjust (5)	30	dB
Modulation bandwidth (6)	>2	MHz
Dynamic range (7)	>40	dBc
Intermodulation (8)	>40	dB
Spurious	>30	dBc
Signal to noise ratio (9)	>90	dB

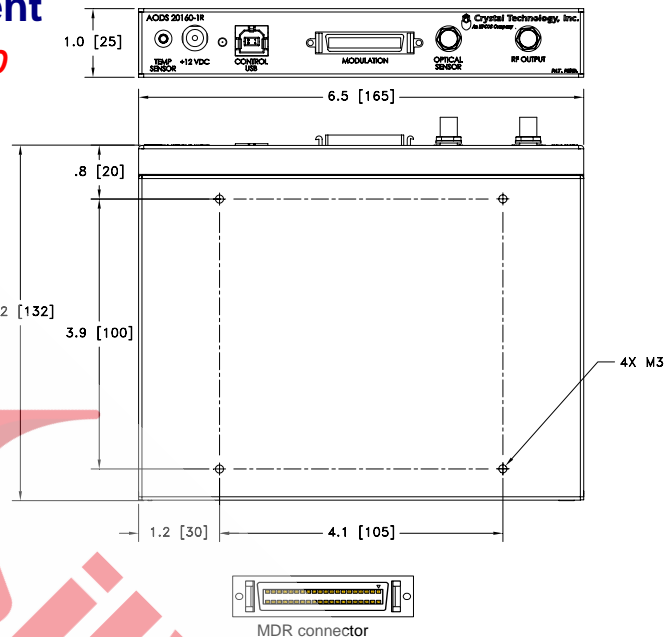
Interfaces

RF output impedance	50	Ohms
Amplitude modulation input level	0-10	Volts
FSK modulation input level	3.3	Volts
Blanking input level	3.3	Volts
Digital controls	ASC II	
Sensor input	±3.3	Volts
Power input, from DC supply	12@1A	Volts

Document

03/25/10

Control



Host Interface Connector			
Pin	Direction	Description	Description
1	-	VCC12	VCC12
2	-	VCC12	GND
3	-	GND	GND
4	Bidirectional Digital 3.3V	ONE_WIRE	GND
5	Output RS232 or Digital 3.3V	Host TXD	Host RxD
6	Output RS232 or Digital 3.3V	Host RTS	Host CTS
7	-	GND	GND
8	Bidirectional Digital 3.3V	I2CSDA	Bidirectional Digital 3.3V
9	Input Digital 3.3V	RESET#	GND
10	Input LVDS	BLANK_N	BLANK_P
11	-	GND	GND
12	Input LVDS	FSK_N	FSK_P
13	-	No Connection	No Connection
14	-	No Connection	No Connection
15	Input Analog -5V to +5V	ANALOG_N	ANALOG_P
16	-	No Connection	No Connection
17	-	No Connection	No Connection
18	-	No Connection	No Connection
19	Input LVDS	DIN_N	DIN_P
20	Input LVDS	CLK_N	CLK_P

General Features

- On-board output power measurement.
- Linear amplitude modulation, blanking, frequency shift keying and RS232 in common connector.
- Robust command set.
- Built in Network Protocols (i.e. Point to Point Protocol PPP, Link Control Protocol LCP, Password Authentication Protocol PAP, Internet Control Message Protocol, etc)
- Control Voltage Levels: RS232.

Comments:

1. Actually 0.0931 Hz, closest approximation to set frequency will be chosen.
2. Typically 1-10 µs, each frequency requires 32 bits, plus a starting RAM address.
3. 3 independently pre loaded preset frequencies
4. At maximum output gain adjustment.
5. Linear in dB at constant signal to noise ratio.
6. Measured at -3 dB point, DC coupled.
7. 20-160 MHz, from 1 dB compression point to minimum achievable output.
8. 2 tone test, 100 MHz + 105 MHz, each of 125 mW output
9. 1 MHz measurement bandwidth , 125 mW reference tone.

Code: 160T1-1SNR-12-0.4J

THIS DOCUMENT IS THE PROPERTY OF CRYSTAL TECHNOLOGY, INC. IT IS NOT TO BE REPRODUCED OR DISCLOSED IN WHOLE OR IN PART OTHER THAN BY EMPLOYEES OF CRYSTAL TECHNOLOGY AND ITS CONTRACTED REPRESENTATIVES AND DISTRIBUTORS. ANY EXCEPTION REQUIRES THE WRITTEN CONSENT OF AN AUTHORIZED REPRESENTATIVE OF CRYSTAL TECHNOLOGY.

TOLERANCES: .XX ± .01 .XXX ± .005	DR	M. Phung 3/19/2010	Crystal Technology, Inc. DESCRIPTION: AODS Synth DDS AODS 20160 STD, RoHS
MATERIAL: 	CHK		
FINISH: 	APP		
	APP		PART NUMBER: 97-02925-32
			REV: B
			SHEET 1 OF 1