

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

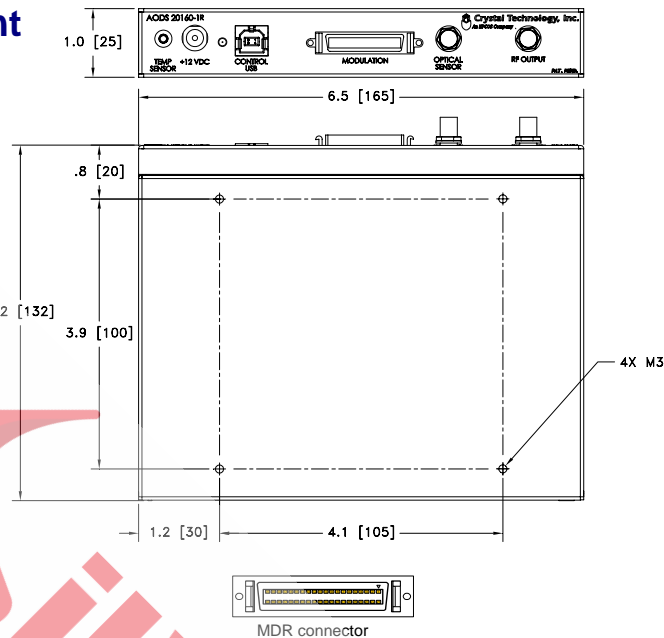
Interfaces

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-12-0.4

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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: 97-02925-31
			REV: C
			SHEET 1 OF 1