

SPECIFICATIONS

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

**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.

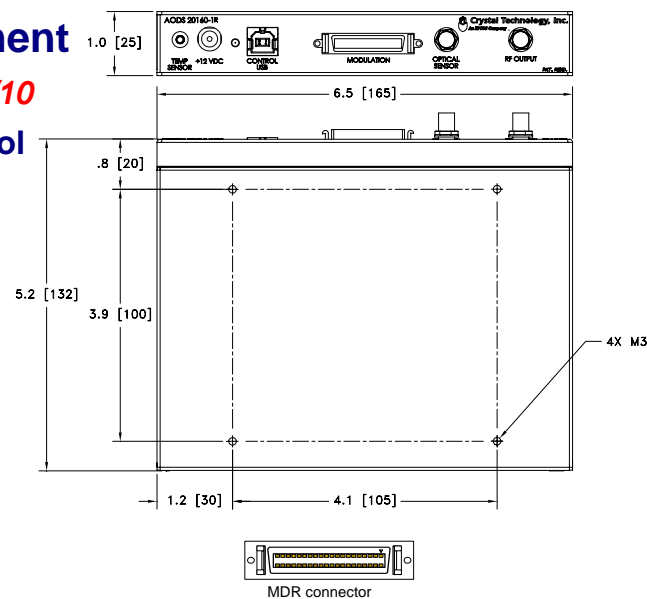
**Comments:**

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

OUTLINE DRAWING

Document  
 03/25/10  
 Control



Host Interface Connector					
Pin	Direction	Description	Pin	Direction	Description
1	-	VCC12	21	-	VCC12
2	-	VCC12	22	-	GND
3	-	GND	23	-	GND
4	Bidirectional Digital 3.3V	ONE_WIRE	24	-	GND
5	Output RS232 or Digital 3.3V	Host TxD	25	Input RS232 or digital 3.3V	Host RxD
6	Output RS232 or Digital 3.3V	Host RTS	26	Input RS232 or digital 3.3V	Host CTS
7	-	GND	27	-	GND
8	Bidirectional Digital 3.3V	I2CSDA	28	Bidirectional Digital 3.3V	I2CSCL
9	Input Digital 3.3V	RESET#	29	-	GND
10	Input LVDS	BLANK_N	30	Input LVDS	BLANK_P
11	-	GND	31	-	GND
12	Input LVDS	FSK_N	32	Input LVDS	FSK_P
13	-	No Connection	33	-	No Connection
14	-	No Connection	34	-	No Connection
15	Input Analog -5V to +5V	ANALOG_N	35	Input Analog -5V to +5V	ANALOG_P
16	-	No Connection	36	-	No Connection
17	-	No Connection	37	-	No Connection
18	-	No Connection	38	-	No Connection
19	Input LVDS	DIN_N	39	Input LVDS	DIN_P
20	Input LVDS	CLK_N	40	Input LVDS	CLK_P

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

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