

## 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:

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

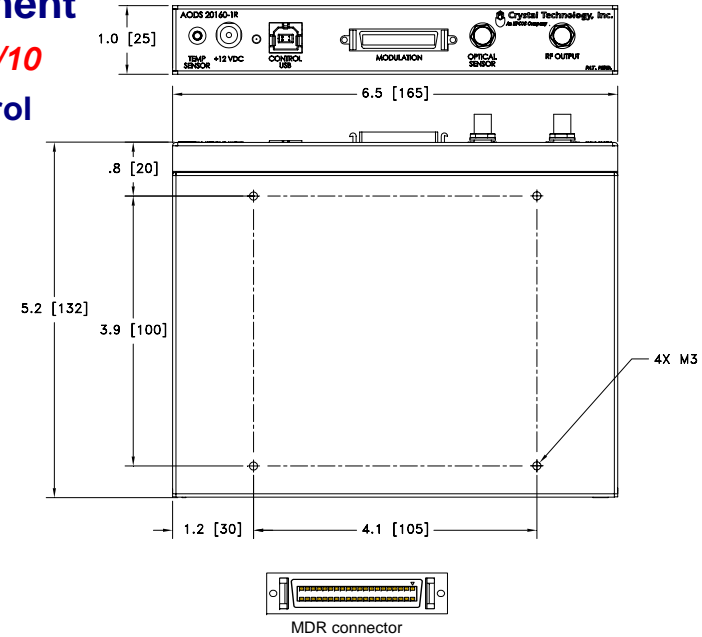
Code: 160T1-1SNR-12-0.4J

## 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	<b>Crystal Technology, Inc.</b>
MATERIAL:	CHK		
FINISH:	APP		PART NUMBER: <b>97-02925-32</b>
	APP		REV: <b>B</b>
			SHEET 1 OF 1