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)	<8	µs
Frequency toggle time (3)	<80	ns

Amplitude Specifications		
RF output power, nominal for all channels on	3.2	Watt
RF output power, per channel	0.4	Watt
Modulation bandwidth (4)	>2	MHz
Dynamic range (5)	>35	dBc
Intermodulation (6)	>41	dB
Spurious	>45	dBc
Signal to noise ratio (7)	>75	dB

Interfaces		
RF output impedance	50	Ohms
Amplitude modulation input level	0-10	Volts
FSK modulation input level	3.3	Volts
Blanking input	3.3	Volts
Digital controls	ASC II	
Sensor input	±3.3	Volts
Power input, from DC supply	24@2A	Volts

General Features

8 channels, combined as composite output.
On-board composite output power measurement.
Independent linear amplitude modulation on each channel.
Common blanking signal for all channels.
Independent frequency shift modulation on each channel.
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 1-8 µs, each frequency requires 32 bits, plus a starting RAM address.
3. Direct switch mode to one of three preset frequency.
4. Measured at -3 dB point, DC coupled.
5. 20-160 MHz.
6. 2 tone test, 100 MHz + 105 MHz, each of 125 mW output
7. 1 MHz measurement bandwidth , 125 mW reference tone.
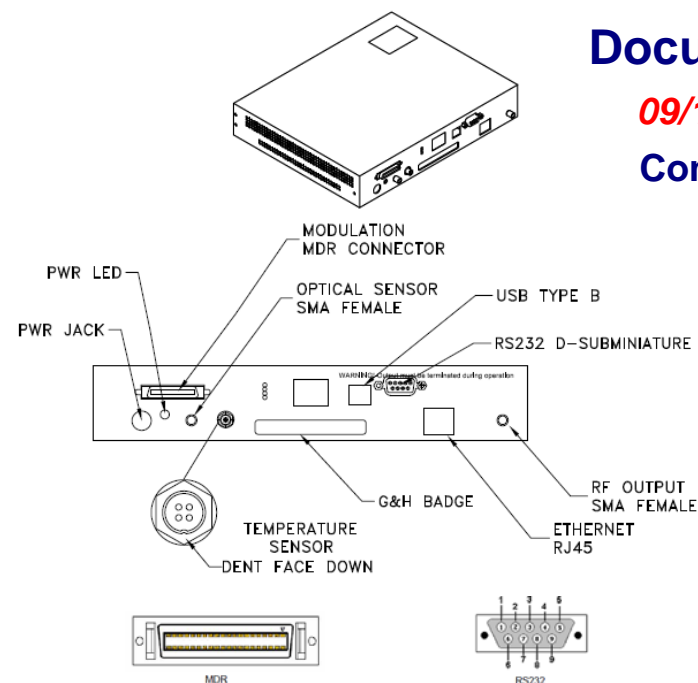8. Reference Outline Drawing 97-03926-14-15.
Code: 160T2-8SAR-24-3.2R

OUTLINE DRAWING

Document

09/16/13

Control

MODULATION MDR CONNECTOR
PWR LED
OPTICAL SENSOR SMA FEMALE
USB TYPE B
PWR JACK
RS232 D-SUBMINIATURE
WARNING: Output must be terminated during operation
G&H BADGE
RF OUTPUT SMA FEMALE
TEMPERATURE SENSOR
ETHERNET RJ45
DENT FACE DOWN
MDR
RS232

Modulation and FSK/Blank Connector Pin out

Pin	Function	Pin	Function
1	VCC24	21	VCC24
2	VCC24	22	GND
3	GRD	23	FSK1
4	GND	24	FSK1
5	GND	25	FSK2
6	GND	26	FSK3
7	GND	27	FSK4
8	GND	28	FSK5
9	GND	29	FSK6
10	GND	30	FSK7
11	GND	31	BLANK
12	GND	32	GRD
13	MOD 0	33	MOD 0+
14	MOD 1-	34	MOD 1+
15	MOD 2-	35	MOD 2+
16	MOD 3-	36	MOD 3+
17	MOD 4-	37	MOD 4+
18	MOD 5-	38	MOD 5+
19	MOD 6-	39	MOD 6+
20	MOD 7-	40	MOD 7+

RS232 DB9 Connector Pin-out

Pin	Function	Abbreviation
1	Not Used	N/C
2	Receive Data	RXD
3	Transmit Data	TXD
4	Data Terminal Ready (+12V)	DTR
5	Ground	GND
6	Not Used	N/C
7	Request to Send	RTS
8	Clear to Send	CTS
9	Not Used	N/C

TOLERANCES: .XX ± .01 .XXX ± .005	DR	M.Phung 8/23/2013	Gooch & Housego
MATERIAL:	CHK		DESCRIPTION: **AODS Synth DDS 8 CH RS232**
	APP		G&H ANALOG PLL=400MHz
FINISH:	APP		PART NUMBER: 97-03926-14 — REV: A — SHEET 1 OF 1