INPUT - Selectable Frequency 10 MHz, -2 to +17dBm into 50 ohms OUTPUT – 10 MHz Frequency 10 MHz. +10dBm ±2 dB Phase Noise 1 Hz -100 dBc/Hz 10 Hz -130 dBc/Hz 100 Hz -150 dBc/Hz 1 kHz -160 dBc/Hz -163 dBc/Hz 10 kHz Harmonics, Subs, Spurious -25, -85, -85 dBc OUTPUT – 100 MHz Frequency 100 MHz, +12dBm ±2 dB Output Phase Noise L(f) Locked to Internal 10 MHz 10 Hz -112 dBc/Hz 100 Hz -125 dBc/Hz 1 kHz -152 dBc/Hz 10 kHz -163 dBc/Hz Harmonics, Subs, Spurious -25, -85, -85 dBc to 600 MHz Loop BW Target Bandwidth: 40 Hz, typical, type 2 Loop STABILITY Aging $\pm 5 \times 10^{-10}$ per day at time of shipment, **Temperature Stability** $\pm 1 \times 10^{-8}$ without external input -10 to +65°C, (Ref. +25°C) **Phase Lock Alarm - TTL** Locked: +3.5 to +5.2 VDC (Hi) Unlocked: +0.8 VDC max (Lo) **Phase Lock Voltage Monitor** Voltage monitor pin supplied, 0 to +8.5 VDC range Warm-Up 7 minutes to 1 x 10^{-7} of final

frequency at 30 minutes at +25°C MECHANICAL Dimensions

2.5 x 6.0 x 0.9"

Connectors

SMA's 7 Pin D-subminiature, male

Packaging

Nickel plated machined brass housing

POWER REQUIREMENTS Supply Voltage

 $+12 \pm 0.5$ VDC

Warm-Up Power

12.6 Watts maximum at start-up for 5 minutes at +25° C

Total Power

6 Watts, typical, steady state +25°C

ADJUSTMENT

Electrical Tuning

 \pm 1 ppm, 0 to +10 VDC Centered at +5V DC Negative Slope

Suitable for use with a 100 k ohm pot

Reference Select Switch – Internal 10 MHz

By Pass

>+4.0 Volts enables external reference <+1.0 Volts disables external</p>

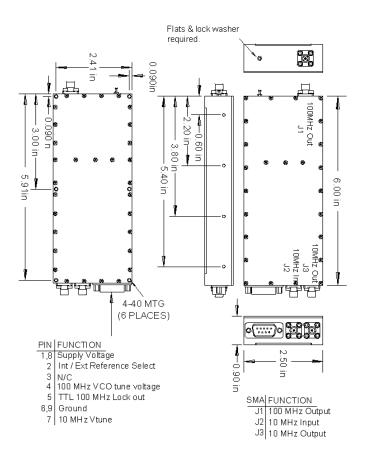
NOTE

When the external 10 MHz reference is applied the internal 10 MHz is disabled and the internal 100 MHz is phase locked to the external 10 MHz signal. The external 10 MHz is also routed through the 10 MHz output port.

REV	DATE	REVISION RECORD	DWN	AUTH
-	10-29-14	Initial Release	CB	
А	11-25-14	Corrected Drawing	СВ	
В	11-25-14	Removed 10 MHz Vref, changed to 12VDC	CB	
С	01-27-15	Changed PL Voltage Monitor to 0 to +8.5V Changled Electrical Tuning to ±1PPM	СВ	
D	02-03-15	Changed L(10kHz) to -163 dBc/Hz	CB	

Wenzel Associates, Inc.							
Premium 10 and 100 MHz Phase Locked Oscillator							
P/N:		Rev:	Date:	Drawn:	Ref:		
501-28544		D	02-03-15		501-12916		
Tolerances: 0.XX De (except as noted) Dimensions are in inches +0.0		ec: 030"	0.XXX Dec: +0.010"	FSCM: 62821	Page 1 of 2		

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