1 Purpose

WORK phase-locked oscillator (PLO) products are rugged modular components that can be used in a wide variety of applications. The phase-locked oscillators have found their way into every type of high quality telecommunications, lab testing, satellite up- and downconverters, radar and many other applications that require the high quality and performance that we design into our products.

2 Performance Parameters

The phase-locked frequency source is both an accurate and stable signal source. Its stability and accuracy are directly related to the stability and accuracy of a lower-frequency reference. The most significant parameters are the frequency band of operation and the corresponding frequency resolution. Next would be performance requirements such as phase noise, spurious, harmonics, type of reference, operating voltage and power consumption. The PLO-CRO-xxxx.x-XO Series is designed as a multi loop, single frequency, very low phase noise device. It comes with an internal crystal reference. Typical performance:

- Low phase noise design
- Medium output level, typical +10 dBm
- Low spurious and harmonics
- Low power consumption < 3 W
- Frequency stability < 100 ppm over temperature and aging over 15 years
- Wide operating temperature range -30°C … +70°C

3 Setup

WORK synthesizers are compatible with many standard serial or parallel interfaces to program frequency, and can be customized to meet any user protocol. Standard user interfaces can be downloaded from the WORK web site and operate from any windows based PC.

Figure 1: PLO-CRO-xxxx.x-XO product example.

4 Dimensions of PLO-CRO-xxxx.x-XO Series

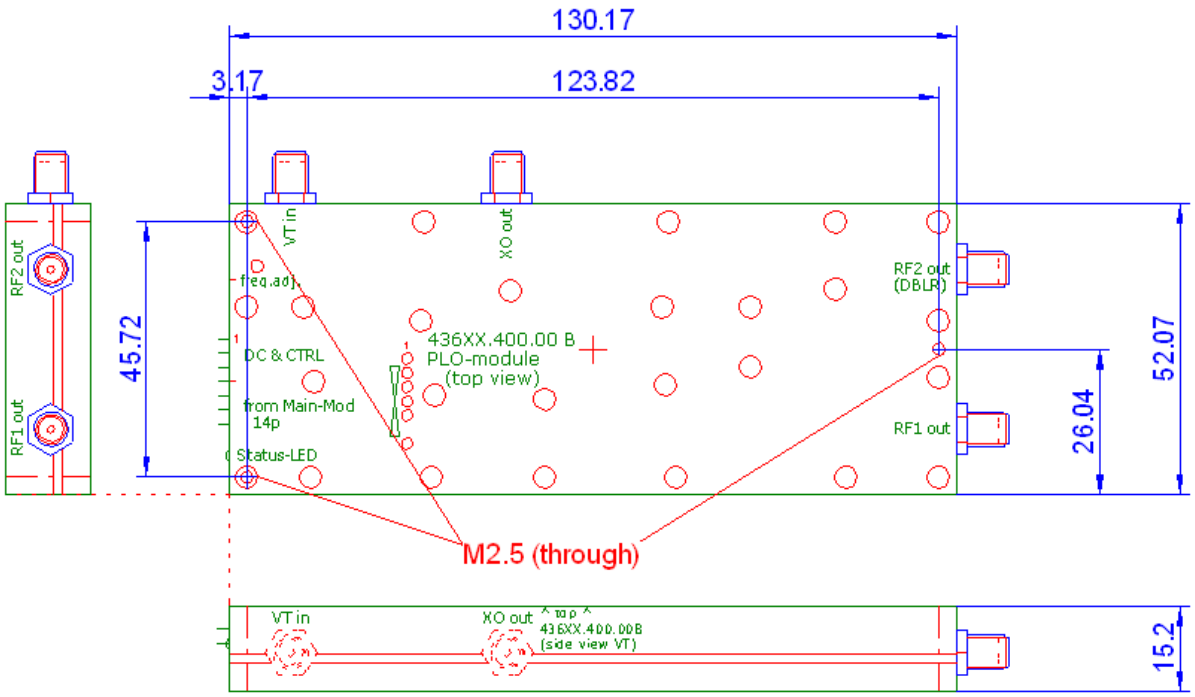

Figure 2: Outline Dimensions.

5 Technical data

PLO Type:		PLO-CRO-xxxx.x-XO	
RF-Output Frequency:		1200.0 ... 9999.9 MHz	
Phase Noise: (3691 MHz)	10 Hz 100 Hz 1 kHz 10 kHz 100 kHz 1 MHz 10 MHz	-55 -85 -110 -117 -121 -125 -125	-60 -90 -115 -124 -127 -144 -148
		max. values in dBc/Hz	typ. values in dBc/Hz
Spurious Outputs:		Δf < 10 MHz: Δf > 10 MHz: Output harmonics:	< -60 dBc < -70 dBc < -50 dBc
Output level:		Connector:	+10 dBm ±2 dB SMA (female)
Frequency stability:		-20°C … +70°C and aging	< ±100 ppm
Lock detect output:		TTL, active high	
Temperature Range:		-30 °C … +70 °C operating, -40 °C … 80 °C storage	
Relative Humidity:		< 95 % non condensing	
Power Input:		7 V ± 5%, <430 mA	
Power Consumption:		max: 3 W	
Power and control connector:		14-Pin-header, male	
Dimension and Weight:		130.2 x 52.1 x 15.2 mm^3 (WxHxD), approx. 135 g	

Specifications are subject to change

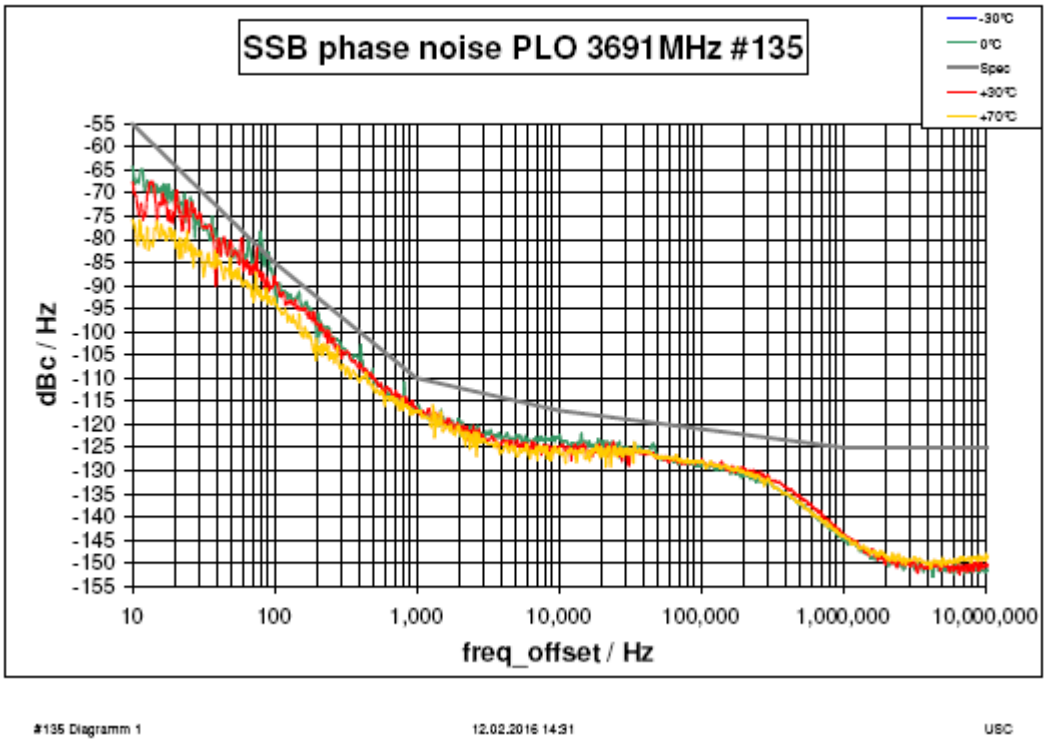

Figure 3: Typical phase noise over temperature.

6 Ordering information

Model-Nr	Description	Connector
PLO-CRO-xxxx.x-XO	PLO, xxxx.x = frequency in MHz	SMA

7 Company address

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