

FEATURES

- Extremely low phase noise
- Excellent immunity to pushing and pulling
- Superior frequency stability
- ± 10 MHz mechanical tuning
- Low spurious
- Very low G sensitivity $< 1.5E-9 / G$
- High reliability
- Reverse bias protection
- +5 VDC to +15 VDC operation

The LCDRO is a free running DRO that is used in many microwave radar and radio frequency applications for both commercial and military.

The LCDRO is remarkably stable, in many cases it replaces any fixed frequency test synthesizer or generator. The Narda-MITEQ LCDRO series is extremely high performance and very power efficient delivering +13 dBm and with less than 120 mA of DC current consumption. LCDRO's durable construction allows operation in very harsh environmental conditions.

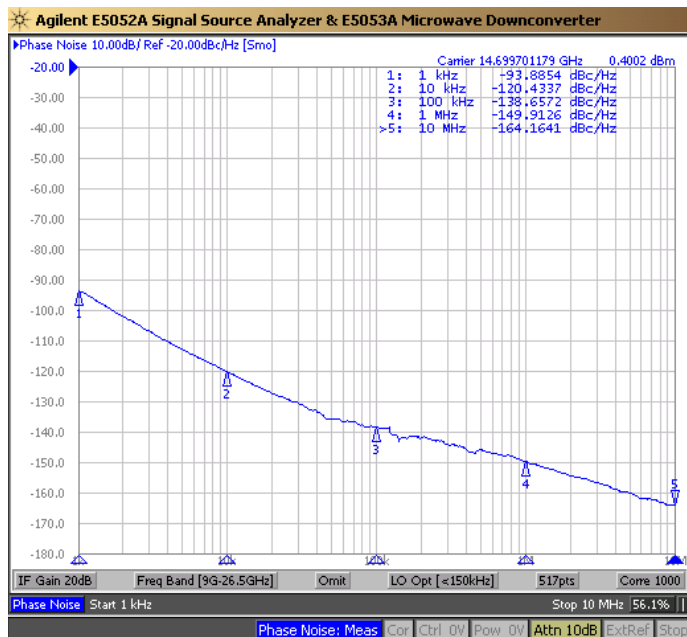
LCDRO SERIES

SPECIFICATIONS

Operating frequency (specified frequency)	GHz	7 to 12	12 to 16	16 to 18
Output power (50 ohm load)	dBm, minimum	+13		
Output power variation over temperature range	dB, maximum	±2		
Harmonics	dBc, minimum	-20		
Spurious	dBc, minimum	-80		
Mechanical tuning	MHz, minimum	±10		
Frequency pushing	kHz/V maximum	15		
Frequency pulling (1.5:1 VSWR)	MHz, peak-to-peak maximum	5	5	5
Frequency drift temperature coefficient (Averaged over the full temperature range)	ppm/°C, maximum	5		
Phase noise at 10 kHz offset	dBc/Hz, maximum	-105		
DC power requirements	Volts	+5 to +15		
Current	mA, maximum	120		
Outline drawing		219853		
Temperature range	°C	-20 to +70		
Vibration at 6 g's and 20 g's		See plots		
Storage temperature	°C	-55 to +115		
Options: extended temperature - ET	°C	-40 to +85		
Options: lower phase noise at 10 kHz - S	dBc/Hz, maximum	-115	N/A	
Options: Paint - P				

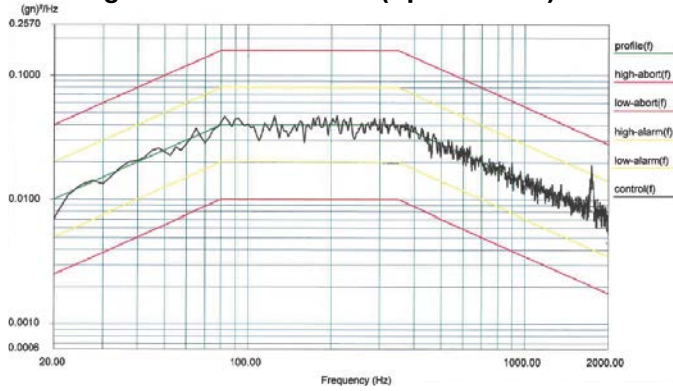
PHASE NOISE SPECIFICATIONS

STATIC Ø NOISE (-SP)

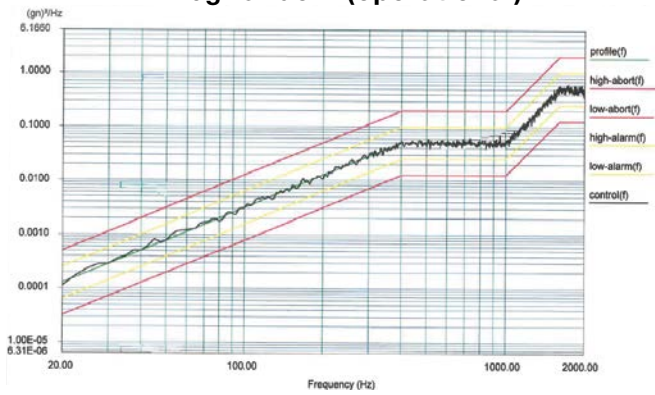


OPERATIONAL PHASE NOISE UNDER VIBRATION

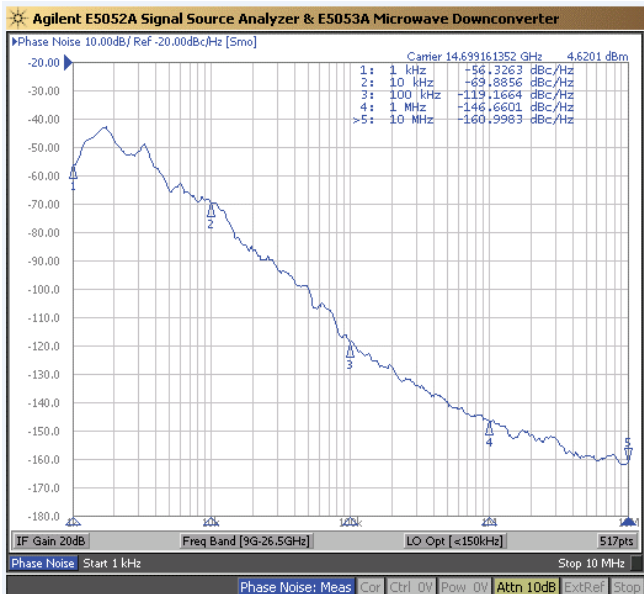
VIBRATION CHARACTERISTICS 6g 20 - 2000 random (operational)



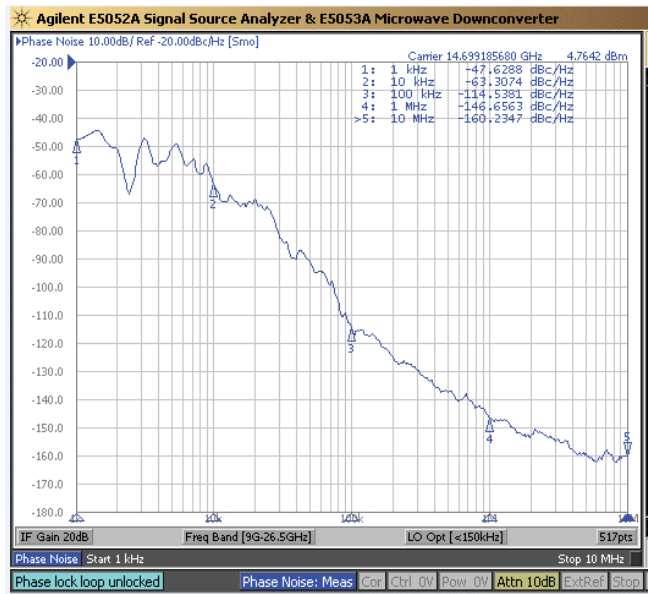
VIBRATION CHARACTERISTICS 20g random (operational)



6g OPERATIONAL PERFORMANCE

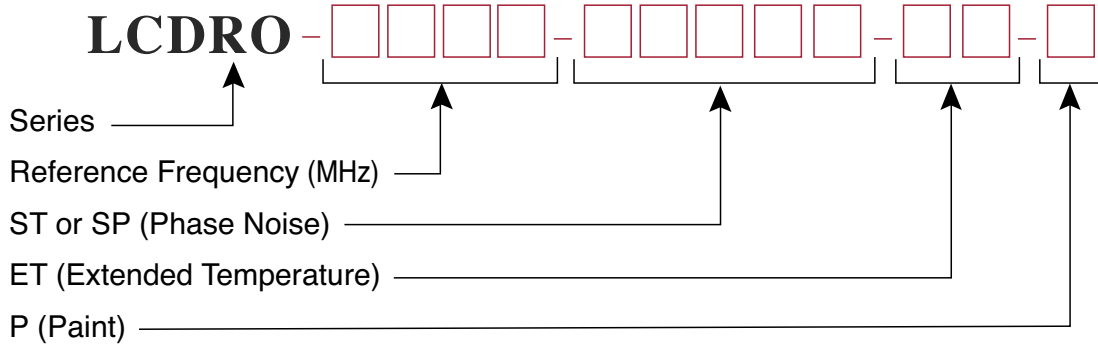


20g OPERATIONAL PERFORMANCE



LCDRO SERIES

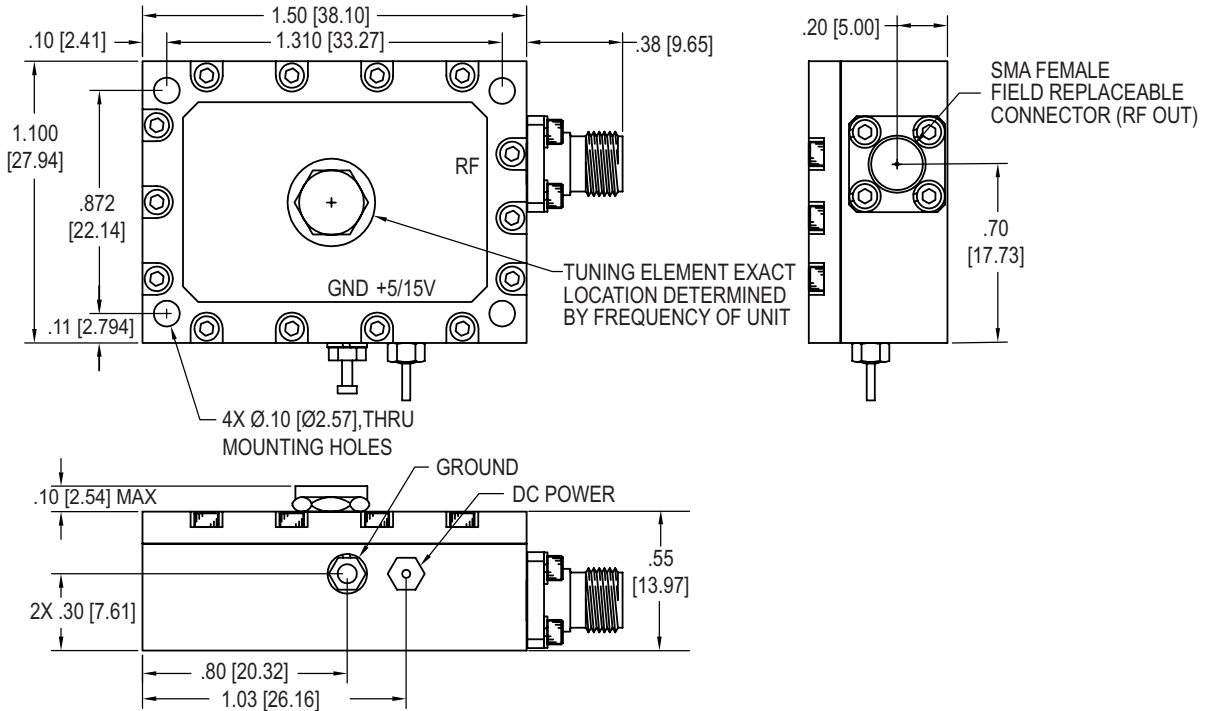
ORDERING INFORMATION



Example: LCDRO - 7000 - ST
 LCDRO - 7000 - SP115 - ET
 LCDRO - 7000 - ST - P

OUTLINE DRAWING

219853



Note: Dimensions shown are in inches and those shown in brackets [] are in millimeters.

The material presented in this datasheet was current at the time of publication. L3 Narda-MITEQ's continuing product improvement program makes it necessary to reserve the right to change our mechanical and electrical specifications without notice. If either of these parameters is critical, please contact the factory to verify that the information is current.

This material consists of L3 Narda-MITEQ general capabilities information and does not contain controlled technical data as defined within the International Traffic in Arms (ITAR) Part 120.10 or Export Administration Regulations (EAR) Part 734.7-11.
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