

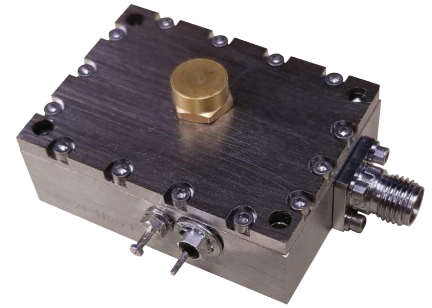


L3HARRIS™
FAST. FORWARD.

LCDRO SERIES

ELECTRICAL SPECIFICATIONS

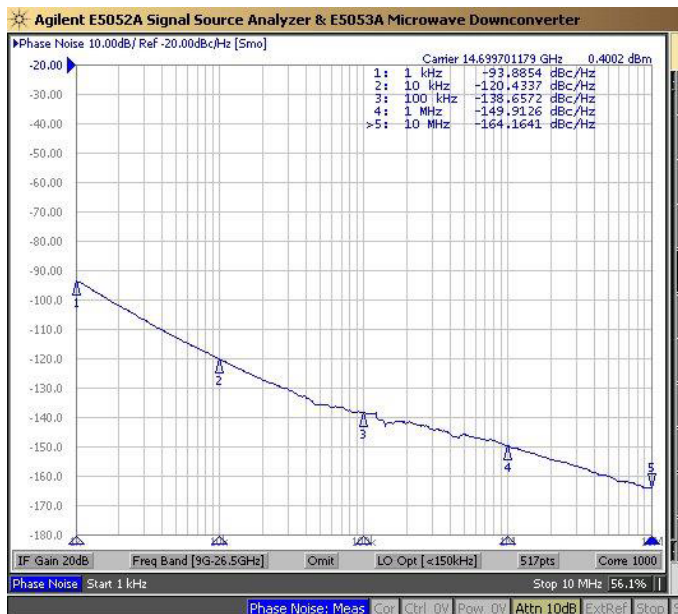
PARAMETERS	UNITS	FREQUENCY			MULTIPLIED X2	
Operating frequency (specified frequency)	GHz	7 to 12	12 to 16	16 to 18	18 to 25	25 to 26
Output power (50 ohm load)	dBm minimum	+13	+13	+13	+13	+11
Output power variation over temperature range	dB maximum	±2	±2	±2	±2	±2
Harmonics	dBc maximum	-20	-20	-20	-20	-20
Fundamental	dBc maximum	N/A	N/A	N/A	-20	-20
Spurious	dBc minimum	-80	-80	-80	-80	-80
Mechanical tuning	MHz minimum	±10	±10	±10	±10	±10
Frequency pushing	kHz/V maximum	15	15	15	15	15
Frequency pulling (1.5:1 VSWR)	MHz peak-to-peak maximum	5	5	5	1	1
Frequency drift temperature coefficient (Averaged over the full temperature range)	ppm/°C maximum	5	5	5	5	5
Phase noise at 10 kHz offset	dBc/Hz typical	-105	-105	-105	-95	-95
DC power requirements	Volts	+5 to +15			+5.5 to +15	
Current	mA maximum	120	120	120	120	120
Temperature range	°C	-20 to +70				
Options: Extended Temp - ET	°C	-40 to +85				
Options: Lower Phase Noise @ 10 kHz - SP	dBc/Hz	-115	-115	N/A	N/A	N/A
Options: *Paint - P **Outline2 - 2	*Add -P only for paint option. See P/N ordering information on Page 4. **Add -2 only for outline 2 option. See P/N ordering information on Page 4.					



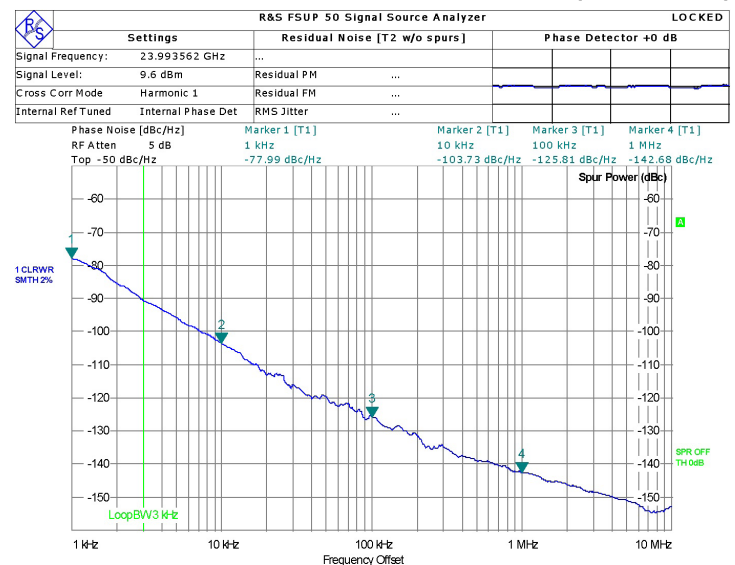
The L3Harris LCDRO is a free running DRO that is used in many microwave radar and radio frequency applications for both commercial and military.

The LCDRO is remarkably stable, in many cases it replaces any fixed frequency test synthesizer or generator. The L3Harris 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.

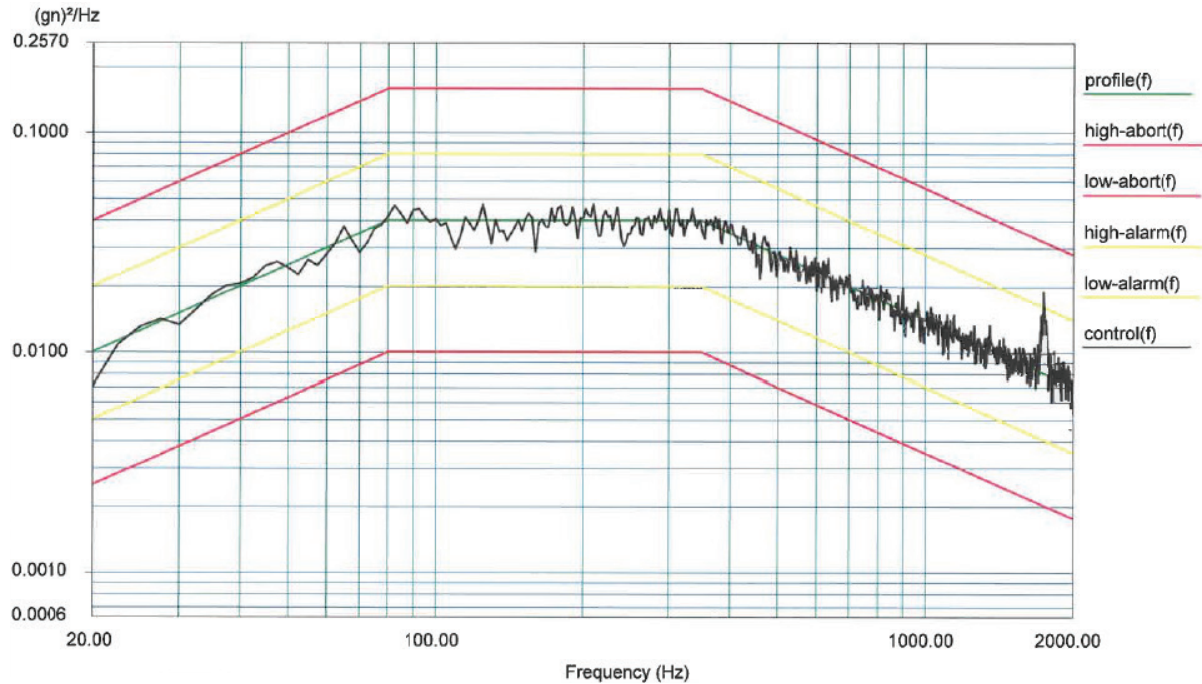
PHASE NOISE SPECIFICATIONS STATIC Ø NOISE (-SP)



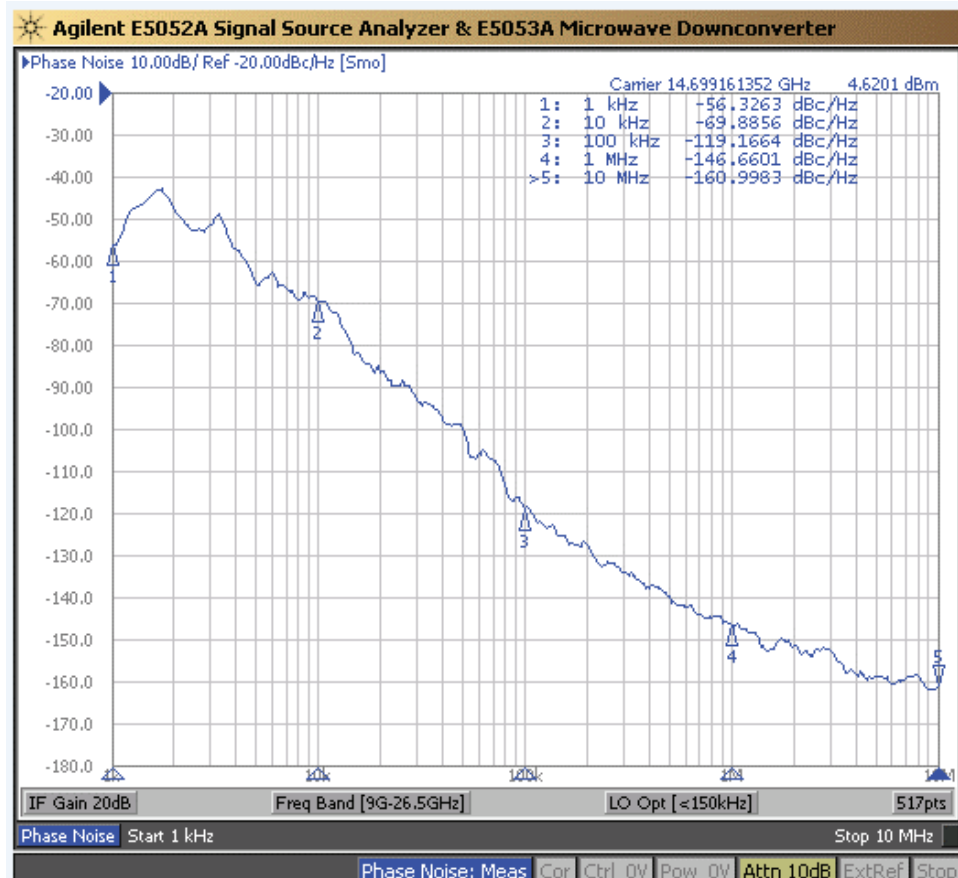
PHASE NOISE SPECIFICATIONS STATIC Ø NOISE (MULTIPLIED)



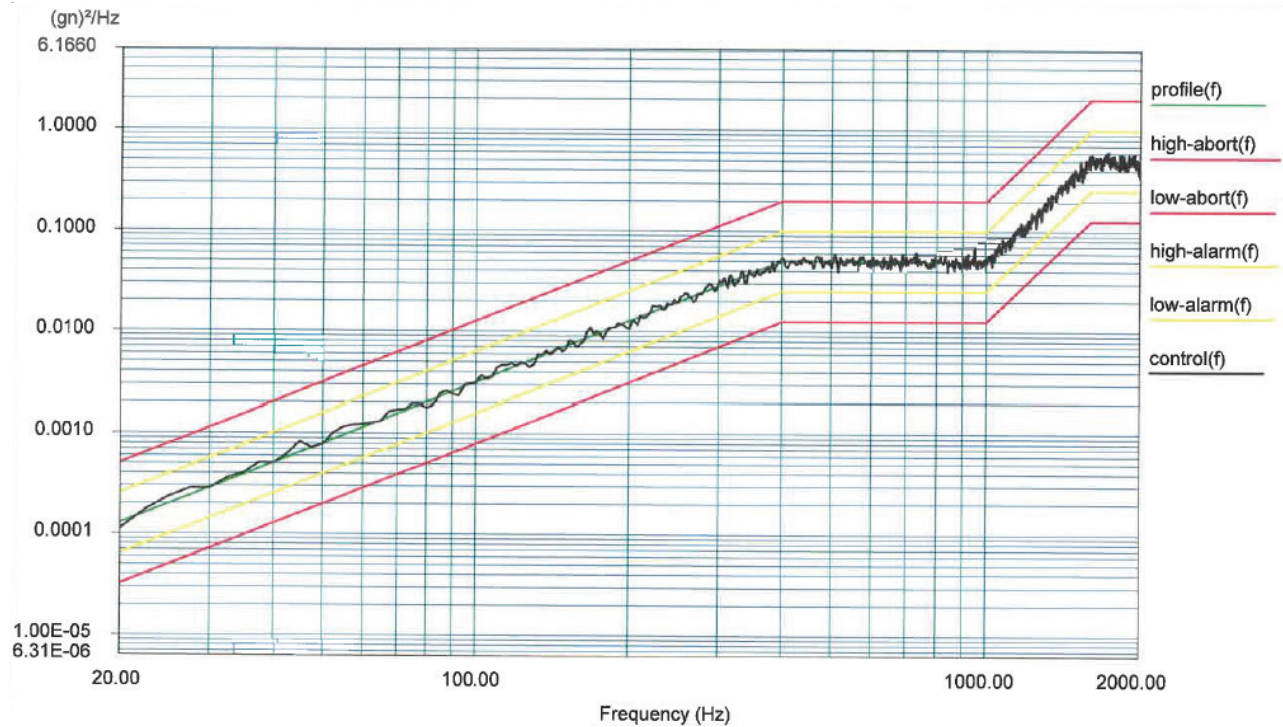
OPERATIONAL PHASE NOISE UNDER VIBRATION VIBRATION CHARACTERISTICS 6g 20 - 2000 random (operational)



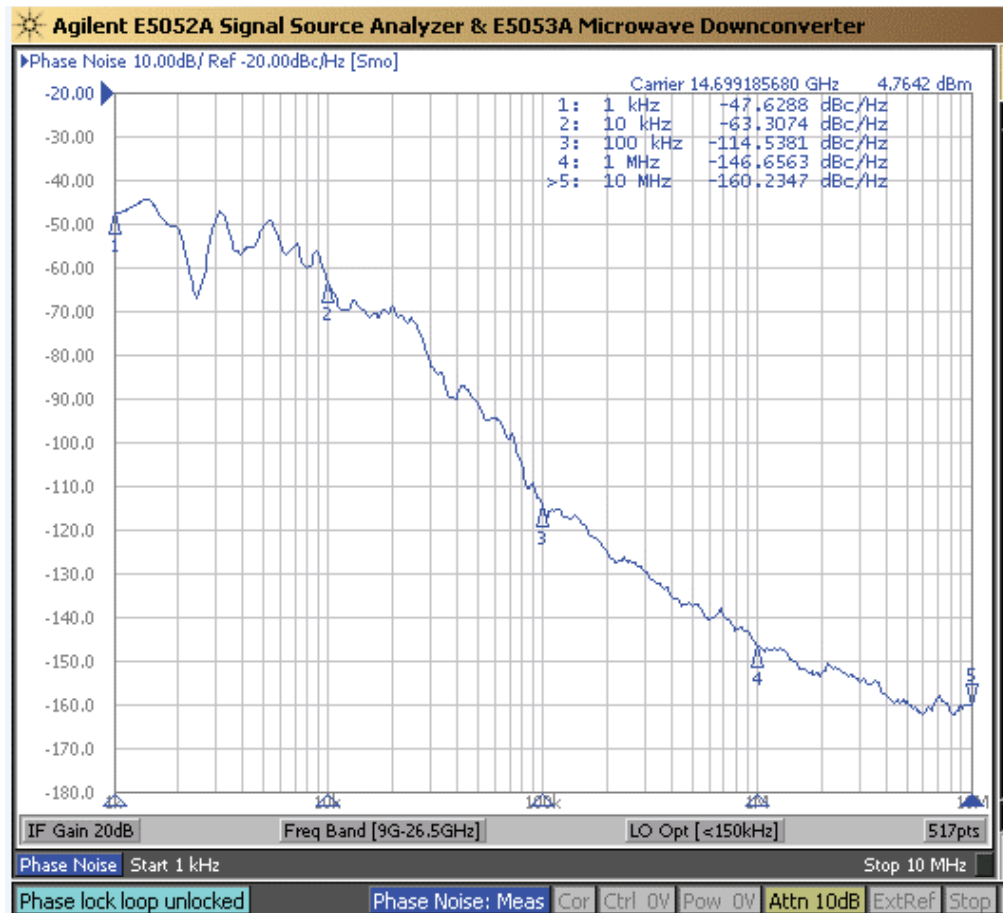
6g OPERATIONAL PERFORMANCE



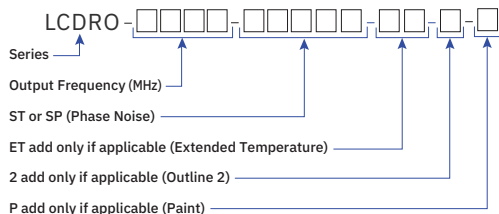
OPERATIONAL PHASE NOISE UNDER VIBRATION VIBRATION CHARACTERISTICS 20g random (operational)



20g OPERATIONAL PERFORMANCE



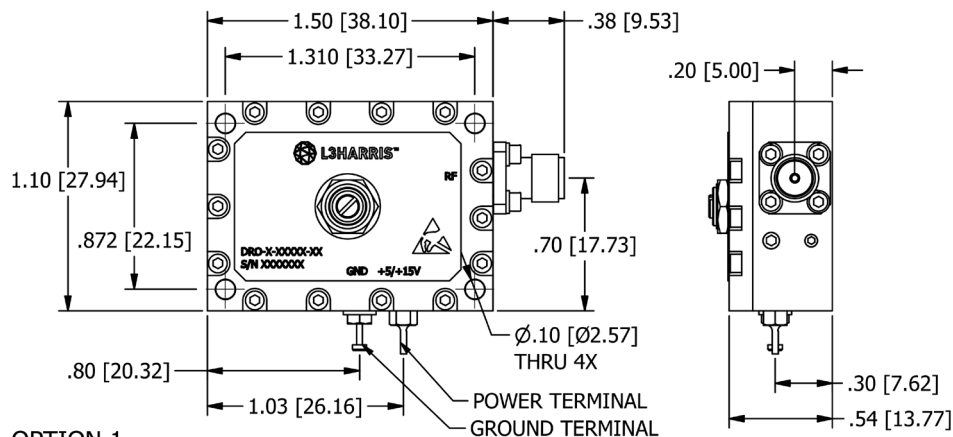
ORDERING INFORMATION



Example Part Numbers:

- LCDRO-7000-ST, Standard 7 GHz Output
- LCDRO-7000-SP115-ET, -115 dBc/Hz Phase Noise at 10 kHz Offset and -40°C to +85°C Operating
- LCDRO-7000-ST-2, Standard with Option 2 Outline
- LCDRO-7000-ST-P, Standard with Paint
- LCDRO-7000-ST-ET-2-P, Standard with -40°C to 85°C Operating, Option 2 Outline, and Paint

STANDARD (DEFAULT) OUTLINE DRAWING



Notes: 1. Interpret dimensions and tolerances per ANSI Y14.5M.

2. .XX ± .020 [0.51]

.XXX ± .010 [0.25]

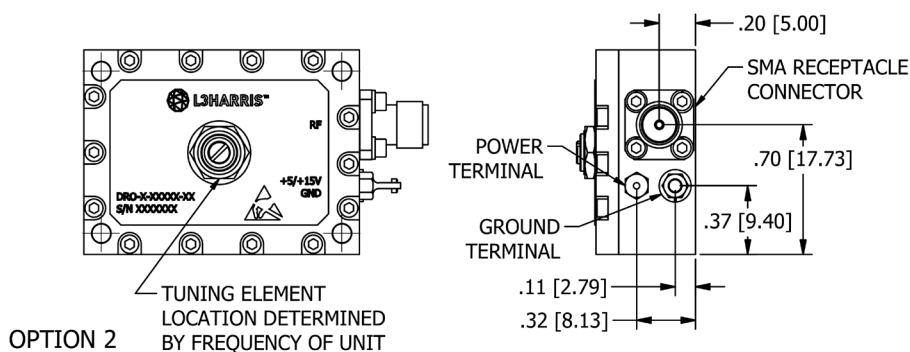
Tolerances in inches [] millimeters

3. Housing: Aluminum alloy, nickel plated.

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

OPTION 2. OUTLINE DRAWING AVAILABLE FOR ALL CONFIGURATIONS

(SPECIFY 2 IN PART NUMBER - SEE EXAMPLES)



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

KEY FEATURES

- > Low cost
- > Low phase noise
- > Low G sensitivity
- > Small package
- > 100% burn-in and temperature testing
- > Three-year warranty

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE		
Operating	ST	-20°C to 70°C
	ET	-40°C to +85°C Available
Storage		-55°C to +115°C
Humidity		95% at 40°C noncondensing
Shock (survival)		30 g's, 10 ms pulse
Vibration (survival)		20 Hz to 2000 Hz random to 4 g's rms
G-sensitivity		1.5 PPb/g (worst axis)

LCDRO Series

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This material consists of L3Harris Technologies 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. **D-419C/02.24.21**

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



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