AM-4200 Series
Dielectric Resonator Oscillator

Amplus Communication offers a complete line of state-of-the-art dielectric resonator oscillators covering the range of 0.5 to 24GHz.

AM-4200 Series DRO

Designed using low noise solid state transistors and high-Q dielectric or coaxial resonators, Amplus Communication DROs/CROs offer high frequency stability and low phase noise characteristics. Isolators are optionally included for enhanced output frequency pulling. Phase locking option is available, and achieved by utilizing Sampling Phase Detection technique for low spurious of <-80dBc. Designs with higher output power, multiple output ports, custom mechanical outline according to customer's specifications is available.

Features

- Low cost
- Low phase noise
- External/Internal reference
- No sub-harmonics
- Low spurious signal
- Low power consumption
- Wide temperature range

Applications

- Digital Microwave Radio
- Satellite Communications
- RF Transceivers
- PL-LNBs
- Surveillance & EW Receiver
- Radar
- Data Link Applications

Options

- Higher output power
- Output isolator
- Multiple output ports
- Field replaceable connectors
- Customize outlines
- Extended temperature
- Phase-locked option

Amplus Communication

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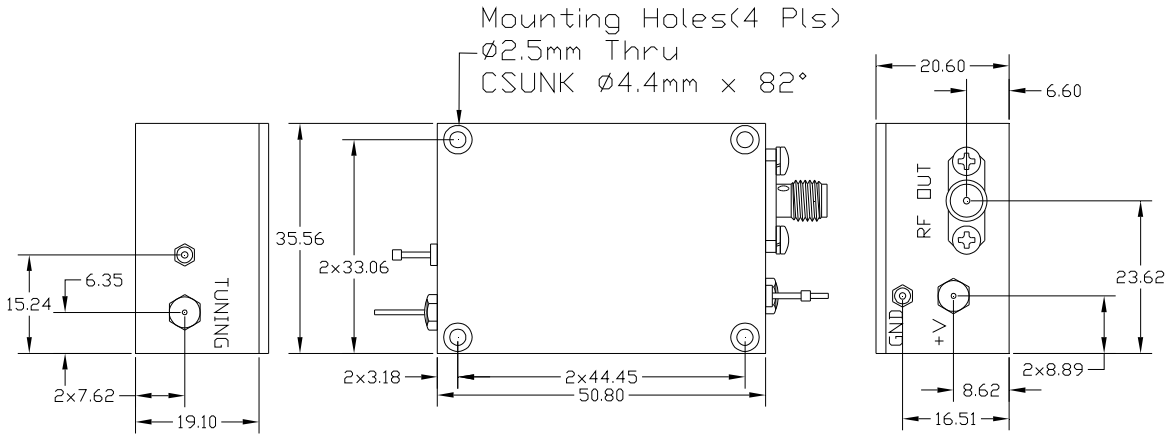
Specifications for AM-4200 Series Dielectric Resonator Oscillator

Parameters	Units	Typical Specifications			
Output Frequency	GHz	**4 to 6**	**6 to 9**	**9 to 12**	**12 to 16**
Output Power	dBm	+12	+12	+12	+12
Variation Over Temperature	dBm	±1	±1	±1	±1
Output Impedance	Ohm	50	50	50	50
Load VSWR		1.5:1	1.5:1	1.5:1	1.5:1
Frequency Pulling	MHz	±1.0	±1.5	±2.0	±2.0
Supply Voltage	Vdc	+12 to +15V	+7 to +15V	+7 to +15V	+7 to +15V
Supply Current	mA	80	90	90	90
Spurious	dBc	-80	-80	-80	-80
Harmonics	dBc	-20	-25	-30	-30
Phase Noise @ 10 kHz offset	dBc/Hz	-100	-97	-90	-85
Phase Noise @ 100 kHz offset	dBc/Hz	-120	-118	-115	-108
Mechanical Tuning Range	%	2	2	2	2
Tuning Voltage Range (option)	V	1 to 12	1 to 12	1 to 12	1 to 12
Frequency Stability	ppm/ºC	5	5	5	5
Connectors: RF Output Supply Voltage Ground		SMA(F) Feedthru Solder Lug	SMA(F) Feedthru Solder Lug	SMA(F) Feedthru Solder Lug	SMA(F) Feedthru Solder Lug
Operating Temperature	ºC	-30 to +70	-30 to +70	-30 to +70	-30 to +70
Storage Temperature	ºC	-45 to +85	-45 to +85	-45 to +85	-45 to +85

Mechanical Outline

Voltage Tuned DRO 4 to 6 GHz

(Location of Tuned Voltage and Power Supply can be customer specified)



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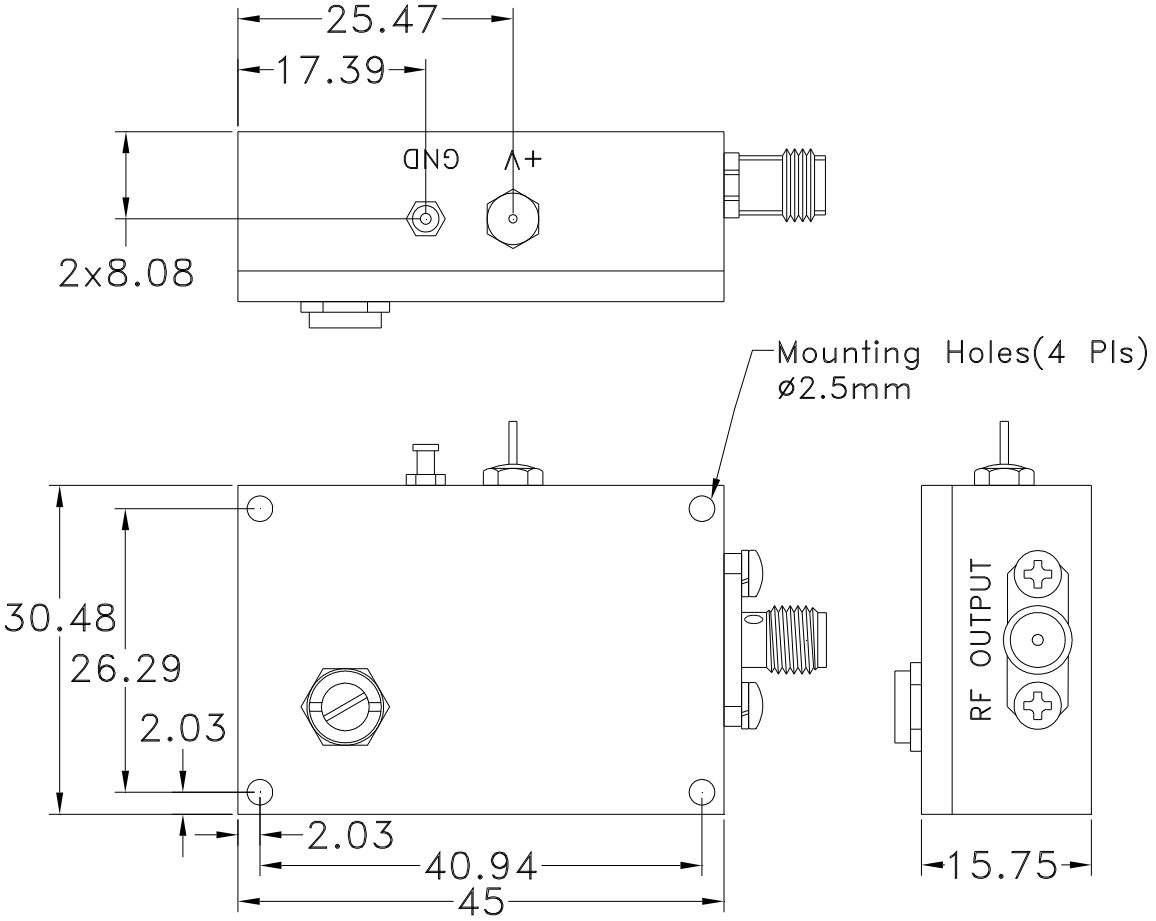
Mechanical Outline

DRO 6 to 9 GHz



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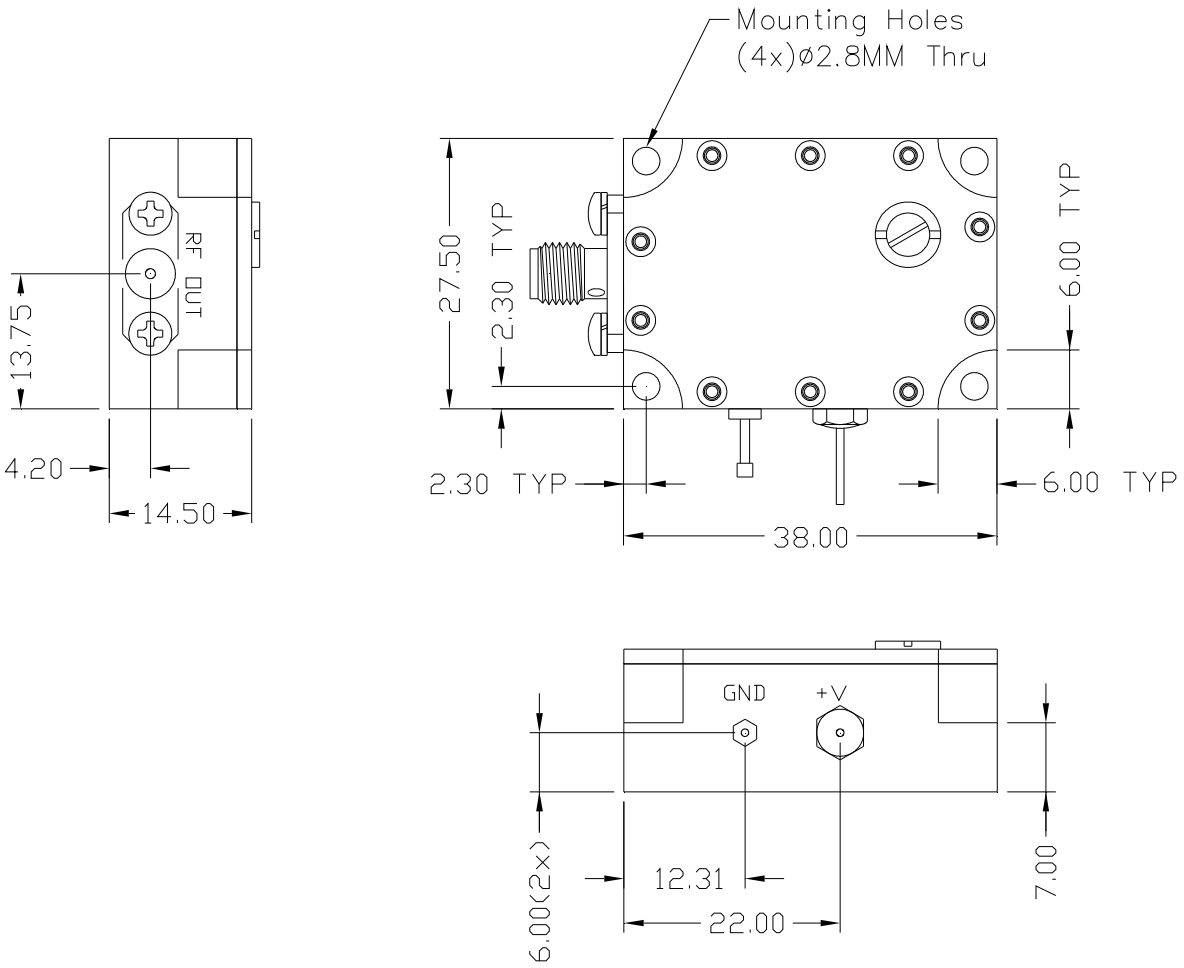
Mechanical Outline

Free Running DRO 9 to 16 GHz



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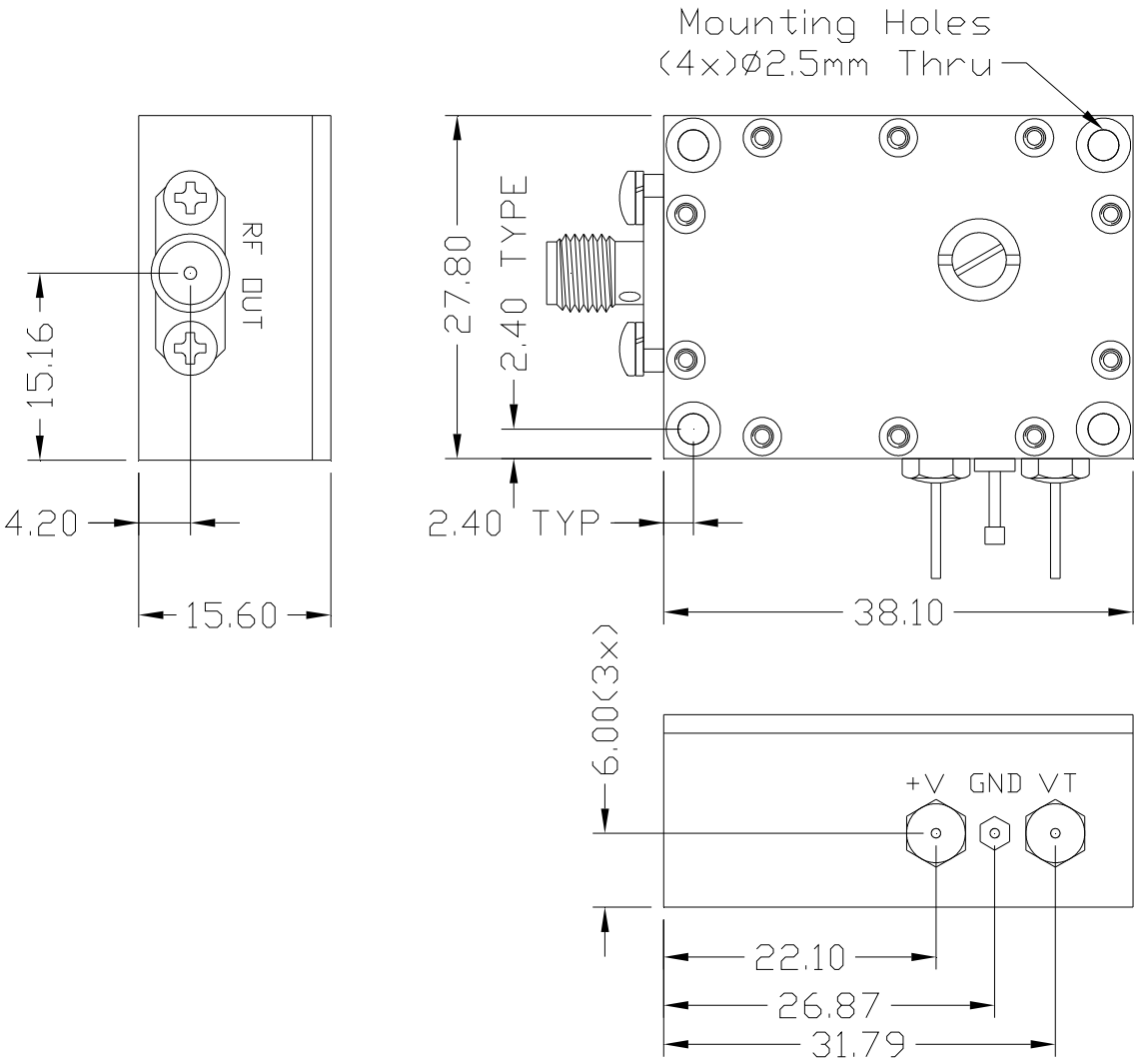
Mechanical Outline

Voltage Tuned DRO 9 to 16 GHz



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