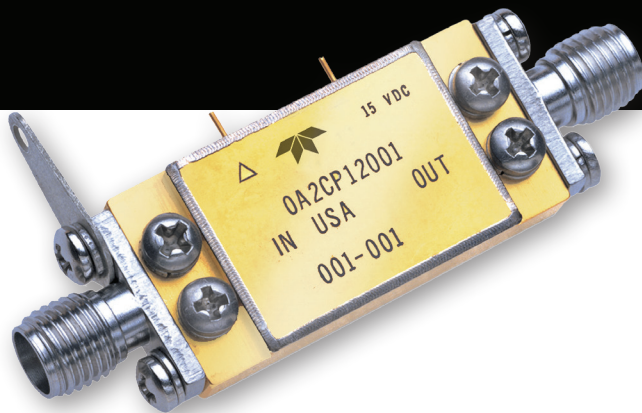
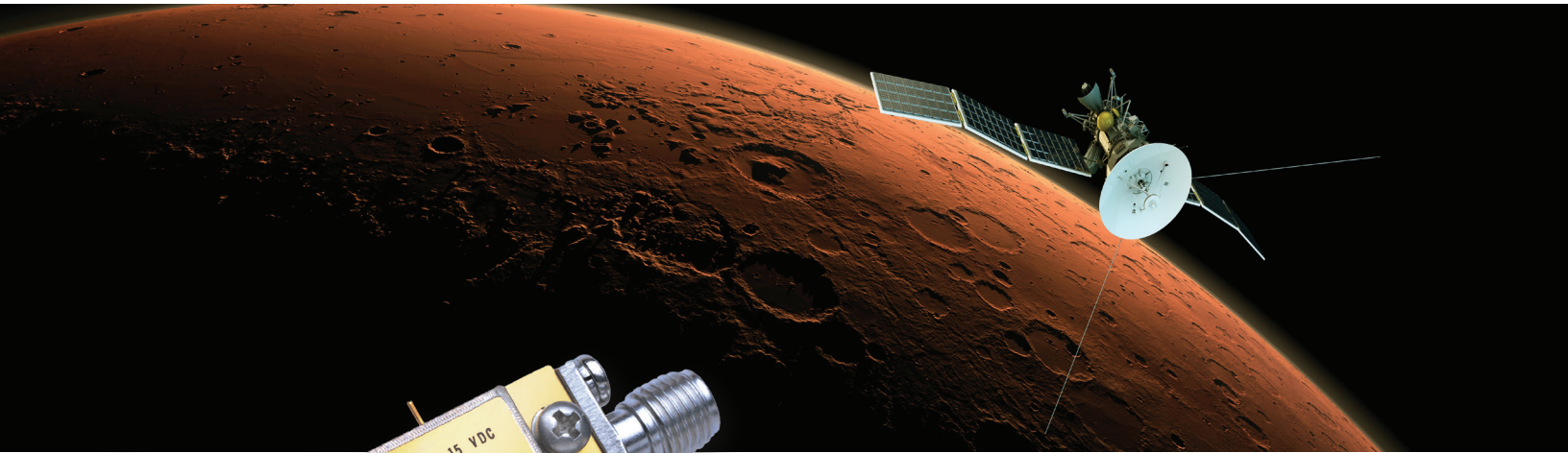


Teledyne Cougar Voltage Controlled Oscillator Product Overview

Flight-Tested and Space-Ready



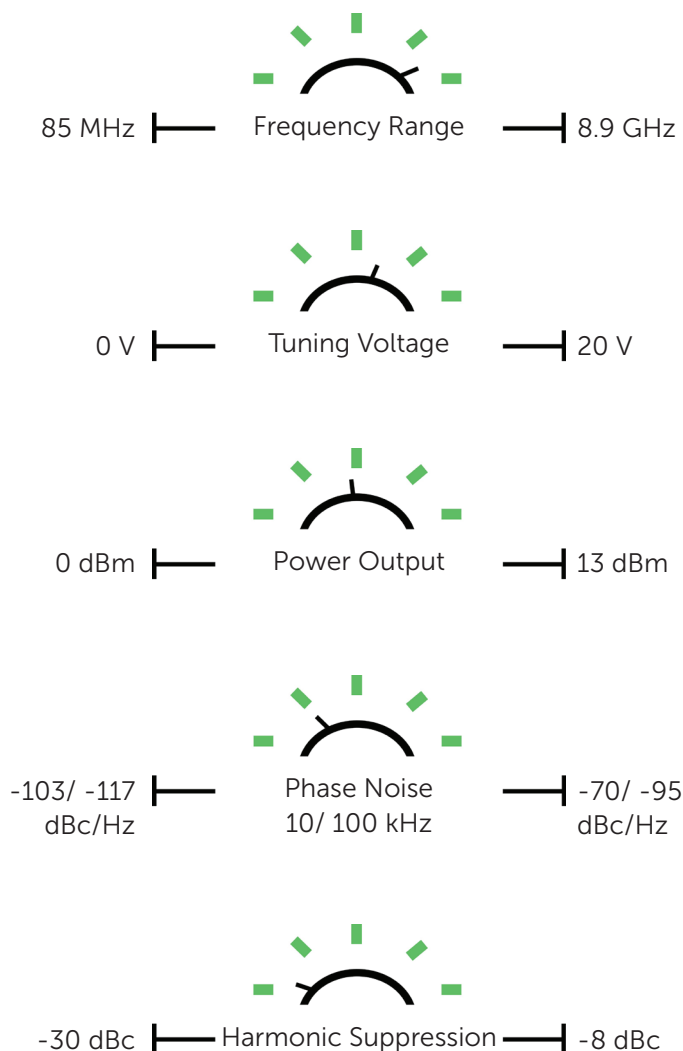
Customizable
Tuneable
Traceable
Proven

Voltage Controlled Oscillator (VCO) Overview

Originating from the acquisition of Cougar Components Corporation, Teledyne RF & Microwave offers a broad portfolio of VCOs from 85 MHz to 8.9 GHz with the lowest phase noise available in the market today. All designs use silicon bipolar transistors and silicon varactor diodes to achieve optimum RF performance.

More than 40 standard product offerings in TO-8, TO-8B, and SMTO-8 packages are ready for customization to optimize your next block diagram design. Every VCO is built with chip and wire hybrid construction to maximize performance in rugged military and space environments without sacrificing reliability.

Configure Your VCO

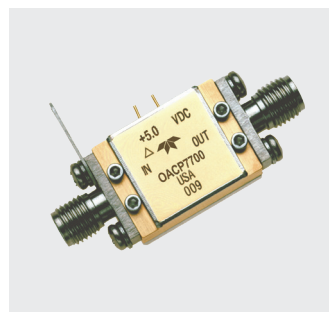
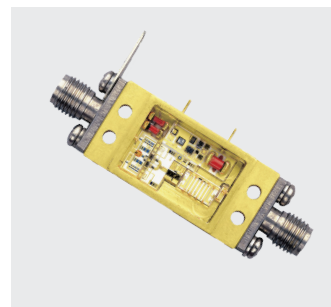


Space-Qualified VCOs

Every VCO in the product portfolio can be readily upscreened to MIL-PRF-38534 Class H and Class K for commercial, scientific, military, and government applications. With over 40 years of space heritage with no in-flight failures, you can trust Teledyne RF & Microwave to enable the success of your next space mission.

Teledyne Cougar VCO Advantages

- Ultra-low phase noise performance
- Low settling time
- Proven chip & wire hybrid construction
- Multiple package types available
- Traceable
- Proven space heritage



VCO Family Examples

Part Number	Frequency Low (GHz)	Frequency High (GHz)	Tuning Voltage Range (V)	Power Output (dBm)	Phase Noise, Offset at 10kHz/100kHz (dBc/Hz)	Harmonic Suppression (dBc)	Package Type
OC150	0.085	0.15	0-20	10.0	-100/-120	-8	TO-8
OC200	0.1	0.2	0-20	10.0	-103/-117	-10	TO-8
OC300	0.15	0.3	0-20	10.0	-95/-115	-8	TO-8
OC400	0.2	0.4	0-20	10.0	-90/-105	-10	TO-8
OC600	0.3	0.6	0-20	10.0	-90/-105	-10	TO-8
OC700	0.5	0.7	0-20	10.0	-90/-105	-10	TO-8
OC800	0.4	0.8	0-20	10.0	-90/-105	-10	TO-8
OC910	0.7	0.9	0-5	0.0	-85/-108	-12	TO-8
OC1000	0.5	1	0-20	10	-90/-105	-10	TO-8
OC1500	0.5	1.5	0-(-20)	5.0	-85/-107	-12	TO-8
OC1510	1.2	1.5	0-5	0.0	-82/-112	-12	TO-8
OC1600	0.8	1.6	0-20	13.0	-90/-110	-12	TO-8
OC1610	1.4	1.6	0-5	0.0	-80/-110	-12	TO-8
OC1810	1.6	1.8	0-5	0.0	-85/-108	-12	TO-8
OC2000	1.35	2	0-15	10.0	-78/-107	-12	TO-8
OC2001	1	2	0-18	10.0	-82/-112	-10	TO-8
OR2001	1.4	2.1	0-15	10.0	-92/-118	-10	TO-8B
OC2800	1.9	2.8	0-13.5	10.0	-73/-101	-12	TO-8
OC3400	2.7	3.4	0-15	10.0	-80/-105	-12	TO-8
OR3700	3.1	3.8	0-15	5.0	-89/-110	-10	TO-8B
OC4002	2	4	0-20	11.0	-85/-106	-15	TO-8
OC4500	3.2	4.5	0-15	12.0	-80/-102	-19	TO-8
OAS5100	4.3	5.1	0-15	13	-84/-108	-22	SMTO-8
OS5100	4.3	5.1	0-15	1	-85/-108	-12	TO-8B
OAS6100	4.7	6.1	0-15	10	-80/-102	-25	SMTO-8
OS6100	4.7	6.1	0-15	0	-80/-102	-12	TO-8B
OAS6500	5	6.5	0.7-12	13	-80/-102	-19	SMTO-8
OAS6700	5.3	6.7	0-15	10	-75/-100	-30	SMTO-8
OS6700	5.4	6.7	0-15	0	-75/-100	-17	TO-8B
OAS7700	5.7	7.7	0-15	13	-75/-100	-28	SMTO-8
OS7700	5.7	7.7	0-15	2	-75/-100	-17	TO-8B
OAS8600	6.5	8.6	0-15	10	-70/-95	-30	SMTO-8
OS8600	6.5	8.6	0-15	1	-70/-95	-20	TO-8B
OS8900	6.9	8.9	0-15	1	-70/-95	-25	TO-8B

Notes:

- Multiple package options available: CougarPak SMA, TO-8, TO-8B, and SMTO-8B
- Note: For a complete listing of all VCOs with expanded RF specifications, please visit www.teledynemicrowave.com or contact us at microwave@teledyne.com for assistance selecting the right VCO for your design.

Other Components

In addition to amplifiers, Teledyne RF & Microwave offers a variety of other components to simplify your next design, including:

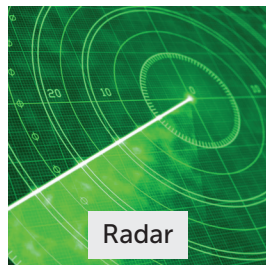
- Attenuators
- Bulk Acoustic Wave (BAW) delay devices,
- Circulators
- Detectors
- Frequency Doublers
- IQ networks
- Isolators
- Linearizers
- Mixers
- Phase Shifters
- Power Dividers
- Switches
- Voltage Controlled Oscillators
- YIG band reject filters
- YIG filters
- YIG oscillators



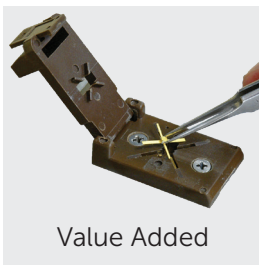
About Us

100+

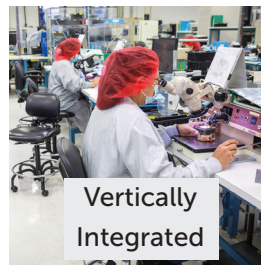
Defense Platforms
Served



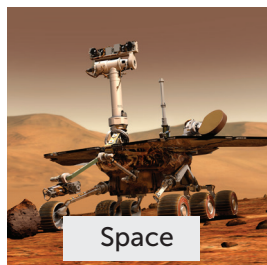
Radar



Value Added



Vertically
Integrated



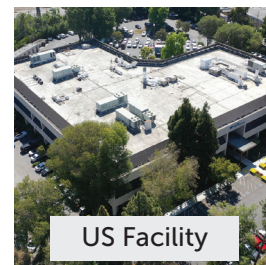
Space

30+

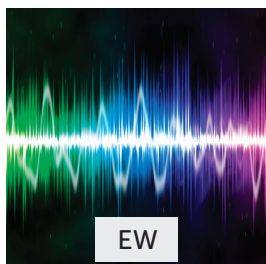
Space Missions
Flown



YIG Technology



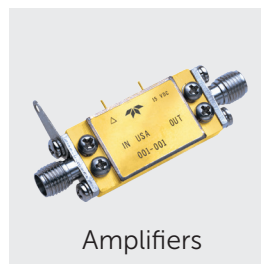
US Facility



EW



UAVs



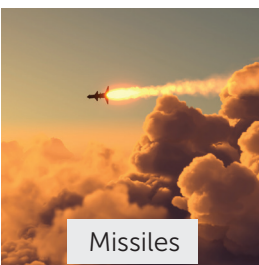
Amplifiers

400+

Standard Amplifiers
Offered



Multi-Function



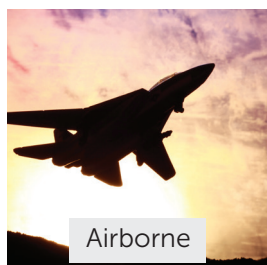
Missiles

MIL-PERF 38534

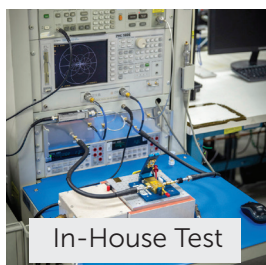
**Class
H & K**
TRB



Modular



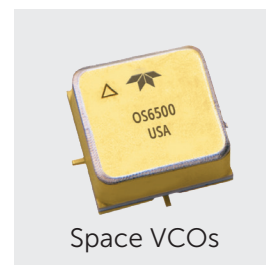
Airborne



In-House Test

40+

Years of Heritage



Space VCOs

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