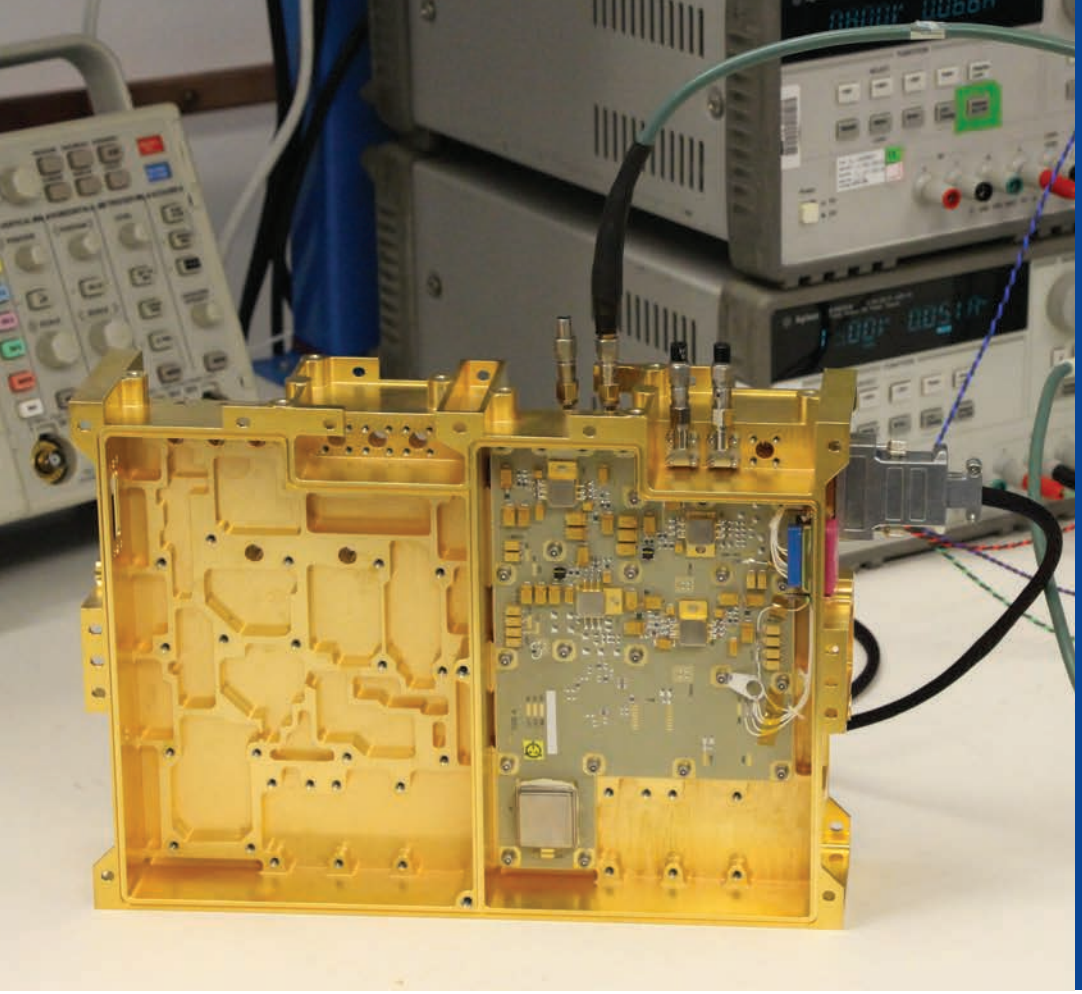

Common Frequency Source

MODERN, HIGH-PERFORMANCE, MANUFACTURABLE FIXED FREQUENCY SOURCES

OVERVIEW

The Common Frequency Source (CFS) products provide fixed single and dual clock references for RF and digital payloads. It covers frequency ranges from 1.9 – 13.5 GHz.

Our Fixed Frequency line features a highly common design and automated engineering asset generation using Feature-based Product Line Engineering for rapid development of high stability, high-precision, customized products at lower cost that meet individual customer needs.

CFS PRODUCT LINE FEATURES

- Tailorable Printed Wiring Board (PWB) based on output frequency
- High reuse for reduced Non-Recurring Engineering (NRE) cost
- Interfaces to variant-specific components (RF structures, oscillators) controlled and parameterized by frequency so that other designs can be fully common
- Automated common test set to validate design performance

CFS PRODUCT LINE OPTIONAL CONFIGURATIONS

- Dual (switched) output frequencies (within 600 ppm)
- Buffered output for internal OCXO clock
- Coherent frequency generation from external reference source
- Common Power Converter (unit assembly only)

APPLICATIONS

Frequency Sources are optimized for space and air communications and ISR systems such as:

- Wideband Communication Links
- Low Probability of Intercept (LPI), Low Probability of Detection (LPD), Anti-Access Area Denial (A2AD) Communication
- Airborne ISR
- Electronic Warfare
- Resilient Systems

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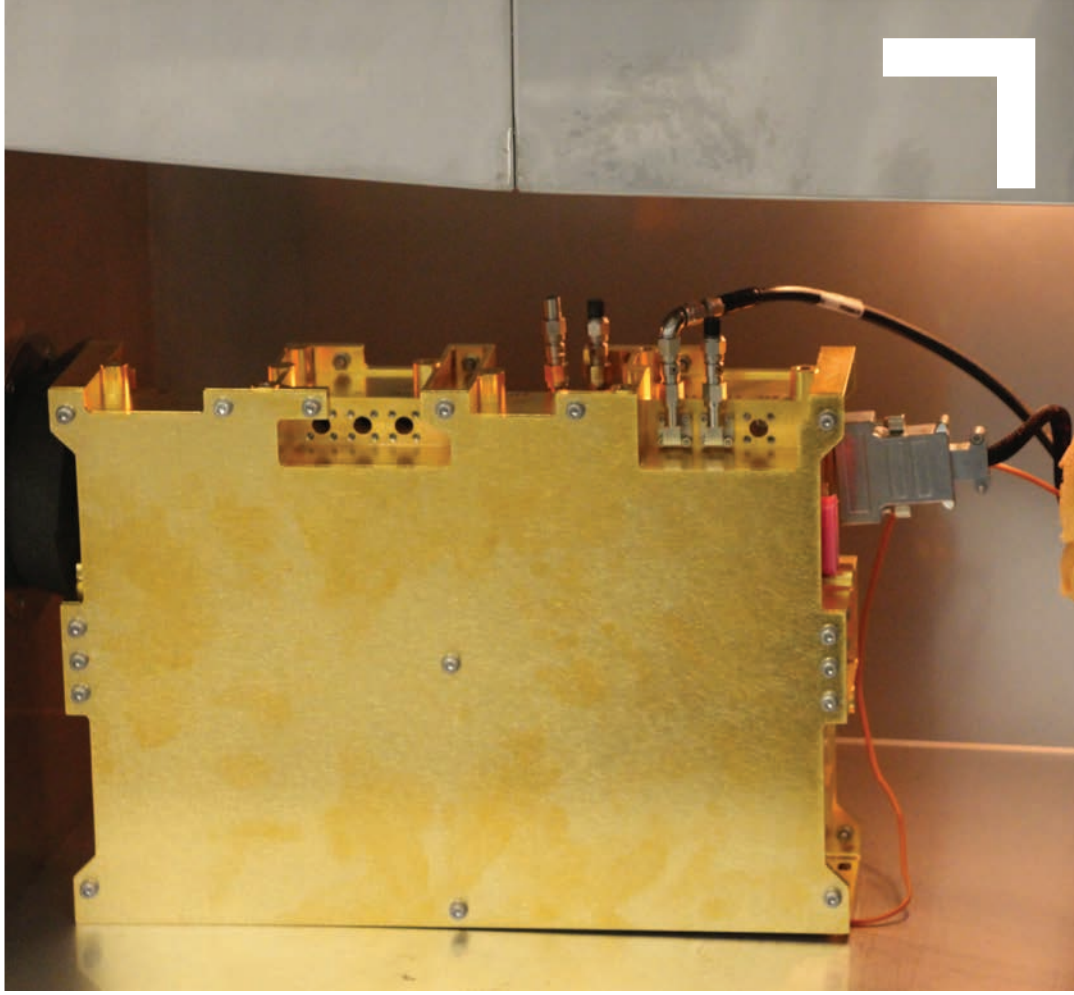

CORE PRODUCT FAMILY

CFS Slice Assembly

- Configurable with up to four independent or one to two redundant frequency sources to support external/internal reference, switchable frequency, and OCXO buffered output for frequency, redundancy, reference source, etc.
- Custom designs supported with additional lead time and funding
- Single output frequency for embedded applications

CFS Unit Assembly

- Configurable with multiple CFS slice assemblies
- Optional Common Power Converter and switching slice which accepts a single bus voltage
- Custom designs support frequency multipliers for larger output frequency range

CFS Variant Examples *Internal Reference

Parameters	Single Source Low Frequency	Single Source High Frequency	Dual Source Low Frequency
Frequency (GHz)	1.9 to 4	5 to 13.5	1.9 to 4
EOL Freq. Stability (ppm)	5	5	5
SSB Phase Noise (dBc/Hz)	at 4GHz	at 13.5 GHz	at 4GHz
10 Hz Offset	-44	-32	-44
100 Hz Offset	-74	-62	-74
1 kHz Offset	-96	-82	-96
30 kHz Offset	-96	-82	-96
100 kHz Offset	-116	-102	-116
1 MHz Offset	-136	-124	-136
10 MHz Offset	-151	-139	-151
100 MHz Offset	-151	-139	-151
Output Power (dBm)	10	10	10
DC Power (W)	7.3 (Steady State) 9.5 (Warm Up)	8.8 (Steady State) 11.1 (Warm Up)	9 (Steady State) 13.5 (Warm Up)
Board Size (in)	7.01 x 4.50 x 0.83	7.01 x 4.50 x 1.30	7.01 x 4.50 x 0.83
Board Weight (lb)	0.4	0.8	0.4

*Specific variants can vary in parameters. These are meant only as examples of the larger product line

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