

MECHANICALLY TUNABLE 0.1—8 GHz OSCILLATORS

SERIES HFE

GENERAL INFORMATION:

The Standard Model is supplied with -15 VDC input, no AFC, standard output power, and $\pm 3\%$ mechanical tuning range around the center frequency specified. KDI will assign a special Model No. if other options are desired.

GENERAL SPECIFICATIONS:

Tuning: Mechanical 3% Tuning Range. Recessed Screwdriver Type. Resolution 0.05%

Voltage Tuning (AFC) Range: (AFC is Optional; Specify When Ordering)
 $\pm 1\%$ of f_c HFE-1 thru HFE-4
 ± 0.3 of f_c HFE-5 and 6

Tuning Voltage: -2 to -15 VDC (specify + or -)

Modulation Rate: DC-10 MHz

Temp. Range Operating: -55 to +85°C

Non Operating: -55 to +125°C

Spurious: -80 dBc max.

Harmonics: -20 dBc max.

Power Supply In: -12 to -20 VDC @ 120 ma max (Internal Regulator Provided) (Specify Voltage Desired)

Power Supply Sensitivity: Specifications Met Over Input Voltage Change of ± 1 VDC

RF Output Power Flatness: ± 1.5 dB over Freq. & Temp.

Phase Noise @ 10 KHz From Carrier: 1 GHz : 100 dbc/Hz, 2 GHz : 94 dbc/Hz, 3 GHz 91 dbc/Hz, 5 GHz 88 dbc/Hz, 7 GHz 85 dbc/Hz

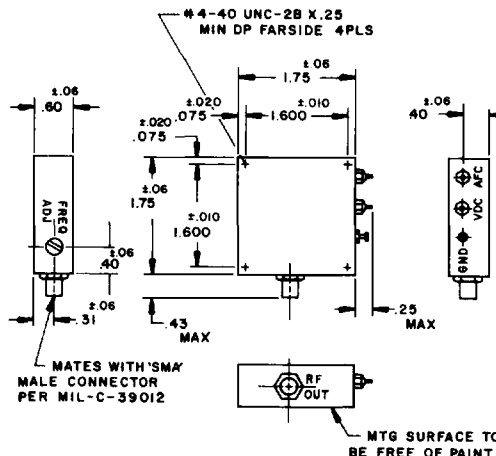
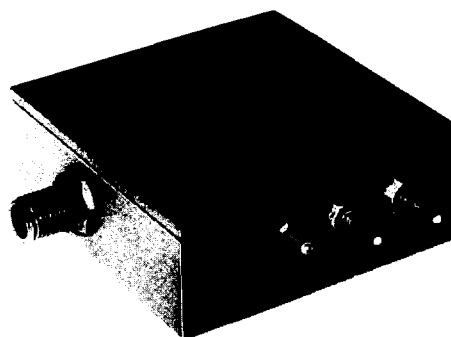
Temperature Stability: -55 to +85°C (extended temperature available)
 $\pm .2\%$ Typ. without AFC
 $\pm 3\%$ Typ. with AFC

Load VSWR: 1.5 Any Phase (optional load isolators available)

Frequency Pulling: $\pm 0.2\%$ Typical

Burn In: 96 hours minimum @ +85°C

Workmanship: MIL-STD-454D



PERFORMANCE SPECIFICATIONS

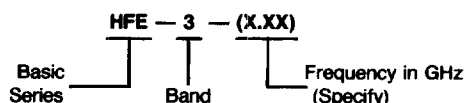
Model	Frequency (GHz)**	Standard Pwr (mw)	Optional Pwr (mw)	Power Supply Range (VDC)	Osc. Type
HFE-01-(XXX)	0.1-0.5	50	100*	-15 to -20	LC
HFE-1-(XXX)	0.5-1.0	50	100*	-15 to -20	LC
HFE-2-(XXX)	1.0-1.5	50	100*	-15 to -20	LC
HFE-3-(XXX)	1.5-2.0	50	100*	-15 to -20	LC
HFE-4-(XXX)	2.0-3.2	50	100	-15 to -20	Cavity
HFE-5-(XXX)	3.2-5.0	50	70	-12 to -20	Cavity
HFE-6-(XXX)	5.0-8.0	10	20	-12 to -20	Cavity

*100 mw Option requires -20 to -25 VDC Power Supply

** $\pm 3\%$ Bandwidth (Some Models Greater)

ORDERING INFORMATION:

STANDARD MODEL NO.



**KDI/triangle
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