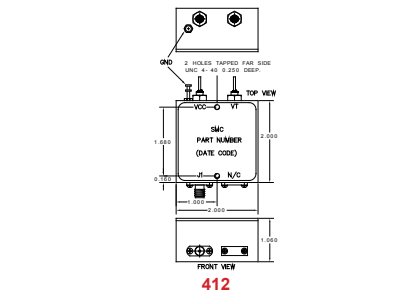
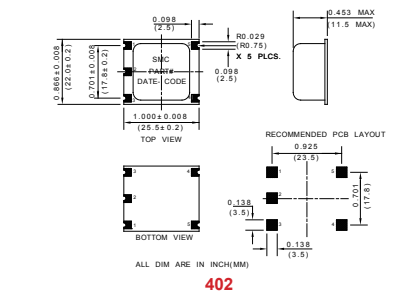
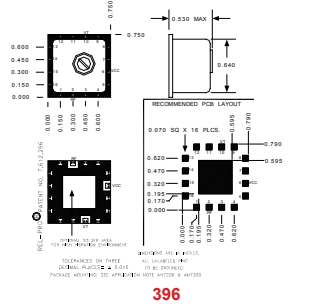
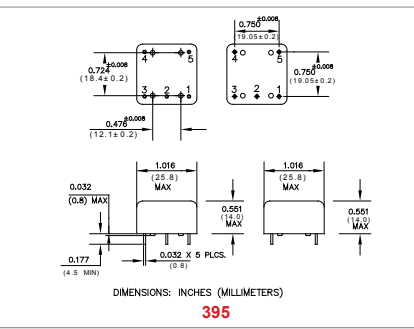
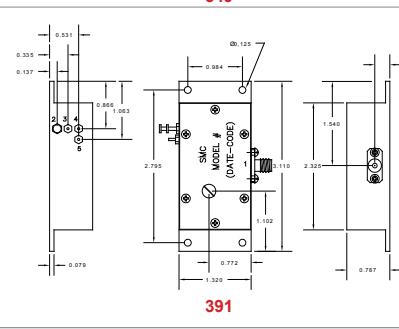
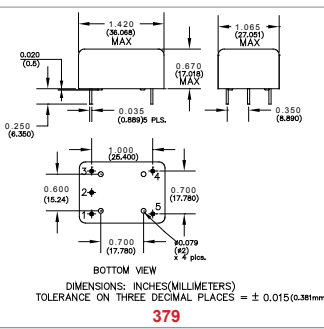
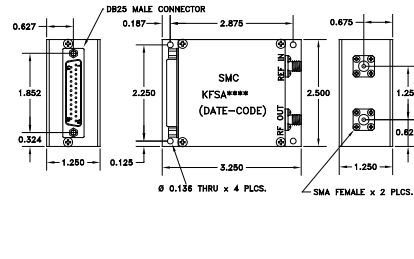
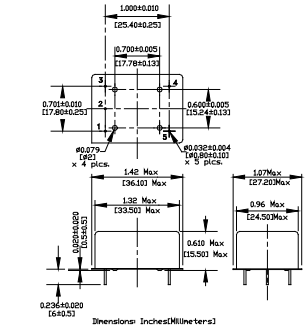
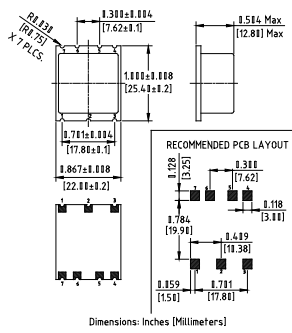
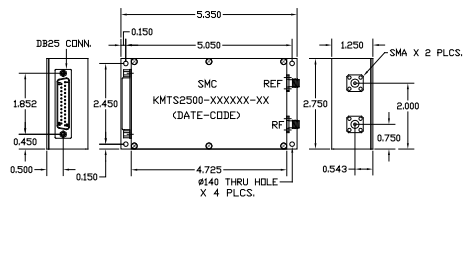
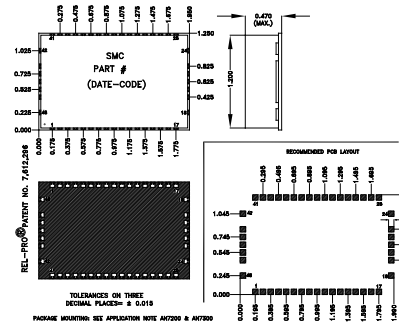
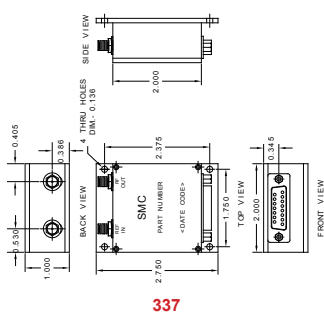
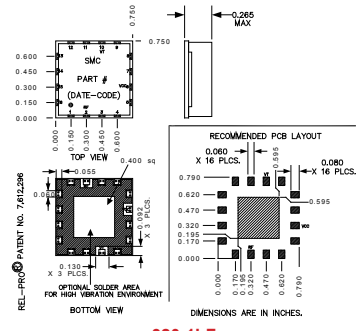
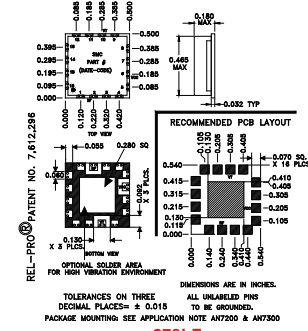
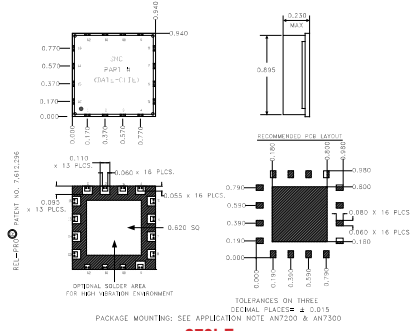
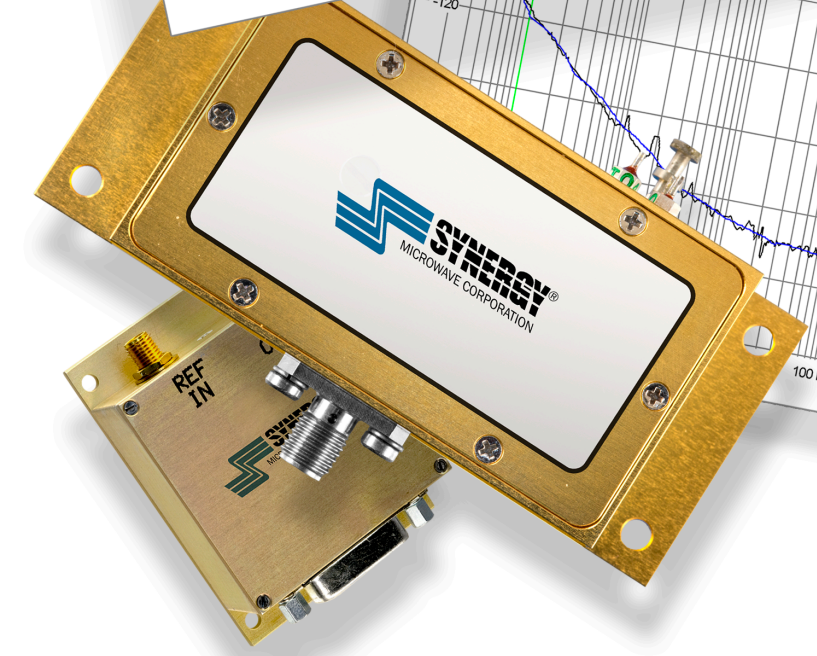
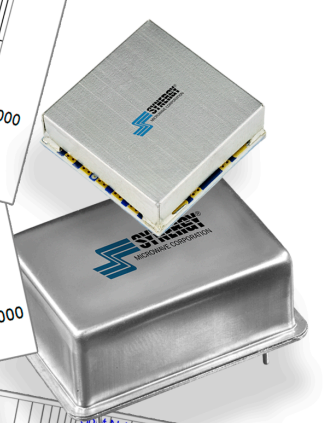
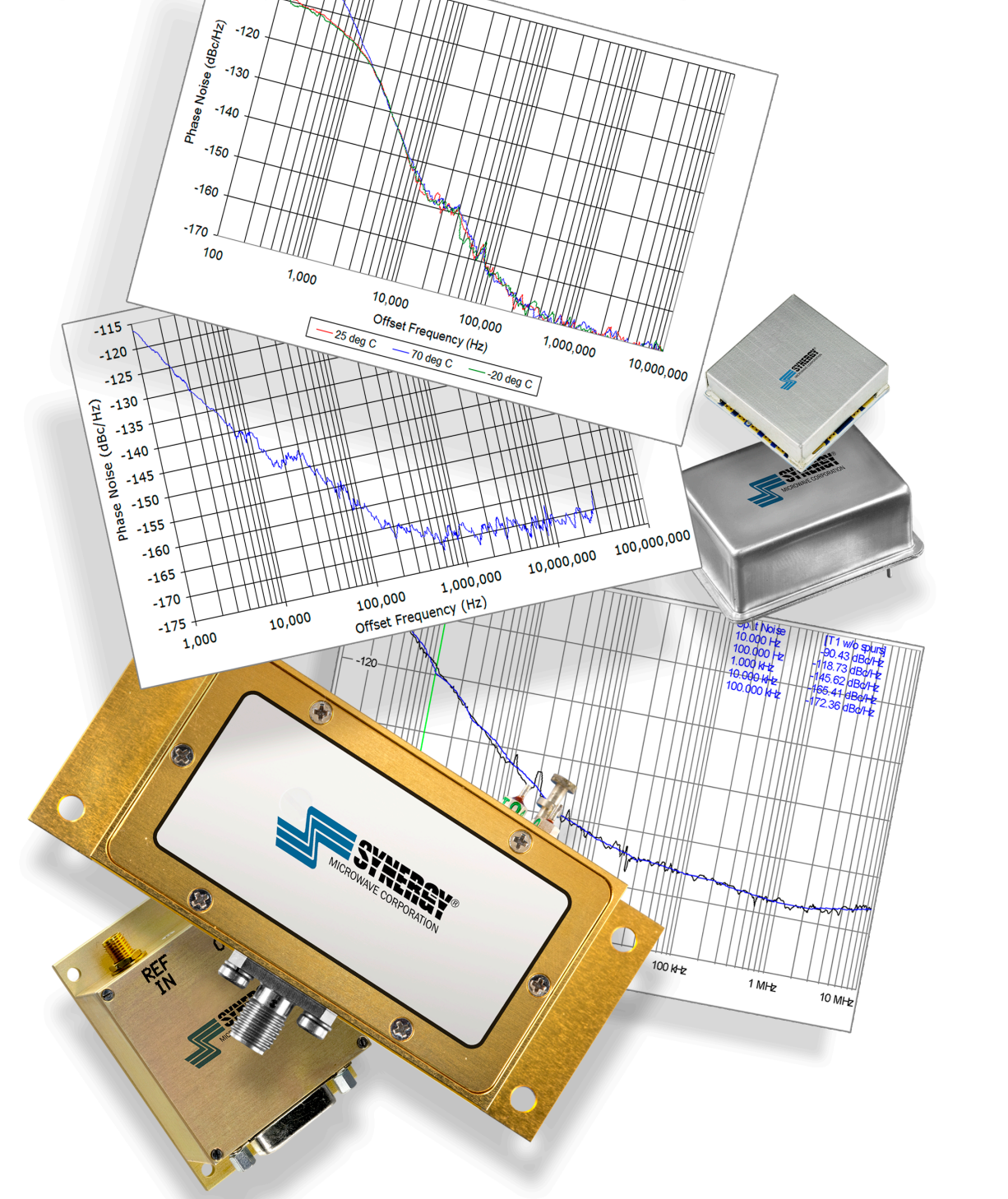


OUTLINE DRAWINGS



HIGH PERFORMANCE

FREQUENCY SOURCES



REFERENCE TRANSLATORS												
Model	Frequency (MHz)	Reference Input Frequency (MHz)	Reference Input Level	DC Bias VDC	Minimum Output Power (dBm)	Spurious Suppression (dBc) [Typ.]	Harmonic Suppression (dB) [Typ.]	Phase Noise (dBc/Hz) [Typ.]				PKG# *
								100 Hz offset	1kHz offset	10 kHz offset	100 kHz offset	
FCTS800-10-5	800	10	1.0 - 3.3 VDC, p-p	+5; +12	0	80	10	-87	-116	-144	-158	273LF
KFCTS800-10-5	800	10	1.0 - 3.3 VDC, p-p	+5; +12	0	80	10	-87	-116	-144	-158	337
FCTS1000-10-5	1000	10	1.0 - 3.3 VDC, p-p	+5; +12	-3	80	25	-80	-115	-141	-158	273LF
KFCTS1000-10-5	1000	10	1.0 - 3.3 VDC, p-p	+5; +12	-3	80	25	-80	-115	-141	-158	337
FSA1000-100	1000	100	1.0 - 3.3 VDC, p-p	+3.3; +5; +12v	+5	80	15	-105	-115	-145	-160	344
KFSA1000-100	1000	100	1.0 - 3.3 VDC, p-p	+12v	+5	80	15	-105	-115	-145	-160	372
FXLNS-1000	1000	100	+13 ± 3 dBm	+5; +12	-2	55	35	-120	-140	-149	-154	344
KFXLNS-1000	1000	100	+13 ± 3 dBm	+12	-5	80	35	-120	-140	-149	-154	347

OVEN CONTROLLED CRYSTAL OSCILLATORS												
Model	Frequency (MHz)	Frequency Tuning Range (PPM)	Tuning Voltage Range (VDC)	DC Bias VDC [Typ.]	Minimum Output Power (dBm)	Harmonics (dBc) [Typ.]	Frequency Stability (ppm) [Typ.]	Phase Noise (dBc/Hz) [Typ.]				PKG# *
								100 Hz offset	1kHz offset	10 kHz offset	100 kHz offset	
OXO10-1-348	10	+/-0.5 to +/- 1.5	0 - 5	+12 @ 200 mA	+5	≤ -20	≤ 5x10 ⁻⁹	-150	-160	-165	-170	348
OXO10-1-349	10	≥ +/-0.4	0 - 5	+12 @ 200 mA	+3	≤ -30	≤ 7x10 ⁻⁹	-150	-155	-165	-165	349
OXO100-1-349	100	≥ +/-1.5	0 - 10	+12 @ 150 mA	+7	≤ -30	≤ 5x10 ⁻⁸	-130	-153	-165	-170	349
OXO100-1-395L	100	≥ +/-3	0 - 10	+12 @ 120 mA	+10	≤ -30	≤ 5x10 ⁻⁸	-125	-157	-173	-177	395
OXO100-1-395M	100	≥ +/-3	0 - 10	+12 @ 120 mA	+10	≤ -30	≤ 5x10 ⁻⁸	-130	-160	-173	-175	395
OXO100-1-395H	100	≥ +/-3	0 - 10	+12 @ 120 mA	+10	≤ -30	≤ 5x10 ⁻⁸	-135	-162	-170	-172	395
OXO100-1-402	100	≥ +/-4	0 - 10	+12 @ 120 mA	+5	≤ -30	≤ 5x10 ⁻⁸	-130	-150	-165	-168	402
OXO120-1-349	120	≥ +/-2	0 - 10	+12 @ 150 mA	+7	≤ -25	≤ 2x10 ⁻⁷	-125	-150	-160	-168	349

HIGH PERFORMANCE CRYSTAL OSCILLATORS												
Model	Frequency (MHz)	Frequency Tuning Range (PPM)	Aging (PPM/year)	DC Bias VDC [Typ.]	Minimum Output Power (dBm)	Jitter (fsec) [Max]	Frequency Stability (ppm) [Typ.] (over temperature)	Phase Noise (dBc/Hz) [Typ.]				PKG# *
								100 Hz offset	1kHz offset	10 kHz offset	100 kHz offset	
HPXO100	100	+/-5	+/-0.3	+12 @ 120 mA	+10	10	<+/-0.2	-140	-162	-174	-183	379
KHPXO100	100	+/-5	+/-0.3	+12 @ 120 mA	+10	10	<+/-0.2	-140	-162	-174	-183	412
HPXO125	125	+/-5	+/-0.3	+12 @ 120 mA	+10	10	<+/-0.2	-140	-162	-174	-183	379
HPXO128	128	+/-5	+/-0.3	+12 @ 120 mA	+10	10	<+/-0.2	-138	-160	-172	-180	379

HIGH PERFORMANCE SAW VCOS												
Model	Frequency (MHz)	Tuning Voltage (VDC)	DC Bias VDC @ I (Max.)	Minimum Output Power (dBm)	Tuning Sensitivity (kHz/V) [Typ.]	Harmonic Suppression (dB) [Typ]	Frequency Pulling kHz/V (Typ. @ 1.75:1 VSWR)	Phase Noise (dBc/Hz) [Typ.]				PKG# *
								1 kHz offset	10 kHz offset	100 kHz offset	1 MHz offset	
HFSO640-5	640	0.5 - 12	+5 VDC @ 35 mA	+6	20	23	10	-122	-151	-162	-170	278LF
HFSO745R84-5	745.84	0.5 - 12	+5 VDC @ 35 mA	+3	20	12	10	-115	-147	-161	-170	278LF
HFSO776R82-5	776.82	0.5 - 12	+5 VDC @ 35 mA	+6	15	12	10	-114	-146	-161	-170	278LF
HFSO800-5	800	0.5 - 12	+5 VDC @ 20 mA	+3	18	20	10	-119	-146	-164	-170	278LF
HFSO800-5L	800	0.5 - 12	+5 VDC @ 20 mA	+3	18	20	10	-110	-142	-162	-170	278LF
HFSO800-5H	800	0.5 - 12	+5 VDC @ 35 mA	+2	20	20	10	-115	-144	-162	-168	278LF
HFSO914R8-5	914.8	0.5 - 12	+5 VDC @ 35 mA	+4	30	29	10	-109	-139	-161	-170	278LF
HFSO1000-5	1000	0.5 - 12	+5 VDC @ 35 mA	+2	20	25	10	-111	-141	-160	-170	278LF
HFSO1000-5L	1000	0.5 - 12	+5 VDC @ 35 mA	+2	20	25	10	-108	-138	-160	-170	278LF
HFSO1600-5L	1600	0.5 - 12	+5 VDC @ 100 mA	+14	38	18	15	-104	-133	-161	-170	320-1LF
HFSO1600-5	1600	0.5 - 12	+5 VDC @ 100 mA	+14	38	18	15	-109	-137	-161	-170	320-1LF
HFSO2000-5L	2000	0.5 - 12	+5 VDC @ 100 mA	+6	35	20	15	-104	-133	-159	-168	320-1LF
HFSO2000-5	2000	0.5 - 12	+5 VDC @ 100 mA	+6	35	20	15	-107	-137	-159	-168	320-1LF

DIELECTRIC RESONATOR OSCILLATOR												
Model	Frequency (GHz)	Tuning Voltage (VDC)	DC Bias VDC @ I (Max.)	Minimum Output Power (dBm)	Tuning Sensitivity (MHz/V) [Typ.]	Harmonic Suppression (dB) [Typ]	Jitter (fs)	Phase Noise (dBc/Hz) [Typ.]				PKG
								1 kHz offset	10 kHz offset	100 kHz offset	1 MHz offset	
DRO100	10	1 - 15	+7 - 10 VDC @ 70 mA	+8	0.3	20	35	-81	-111	-137	-158	391
SDRO1000-8	10	1 - 15	+8 VDC @ 25 mA	-2	0.4	40	90	-79	-107	-132	-154	396
DRO1024	10.24	1 - 15	+7 - 10 VDC @ 70 mA	+7	0.4	40	53	-79	-109	-136	-158	391
SDRO1024-8	10.24	1 - 15	+8 VDC @ 25 mA	-2	0.4	28	50	-80	-111	-131	-153	396

* See last page for outline drawings.