

**SMD VOLTAGE CONTROLLED OSCILLATOR
(12.7 X 12.7 X 6.0MM)**
FEATURES

- CERAMIC COAXIAL RESONATOR, LOW PHASE NOISE
- FREQUENCY RANGE : 400~5000MHZ
- TWO STANDARD PACKAGES / ROHS COMPLIANT


SMD1

SMD2
■ SPECIFICATION

MODEL	FREQ. (MHz)	TUNING VOLTAGE (V)	TUNING SENSITIVITY (MHz/V)	POWER OUTPUT (dBm) Typ	FREQ. DRIFT (MHz) Typ	PHASE NOISE @10/100kHz (dBc/Hz) Typ	HARMONICS (dBc) Typ	POWER SUPPLY (V/mA)max	INPUT CAPACITANCE (pF) Typ	PKG
TCRO422	417-427	0.5-4.5	4	6	2	-116/-136	-10	5/20	100	SMD2
TCRO585	545-60	0-10	8	10	2	-120/-140	-10	12/30	100	SMD2
TCRO646	641-651	0.5-4.5	4	6	2	-122/-142	-10	5/20	100	SMD2
TCRO698	681-716	0.5-9	5	7	2	-118/-138	-10	8/25	100	SMD2
TCRO720	720	0.5-4.5	2.4	9	2	-126/-146	-10	5/30	100	SMD2
TCRO845	845	0.5-4.5	2	9	2	-122/-142	-10	8/30	100	SMD2
TCRO896	891-901	0.5-4.5	4	6	2	-122/-142	-10	5/20	100	SMD1
TCRO930	925-935	0.5-4.5	4	6	2	-120/-140	-10	5/25	100	SMD1
TCRO976	971-981	0.5-4.5	4	10	2	-120/-140	-10	5/25	100	SMD1
TCRO1024	1019-1029	0.5-4.5	4	6	2	-123/-143	-10	5/25	100	SMD1
TCRO1030	1030	0.5-4.5	2	6	2	-126/-146	-10	5/30	100	SMD2
TCRO1089	1059-1119	0.5-12	7	6	3	-113/-133	-10	5/25	100	SMD1
TCRO1135	1130-1140	0.5-4.5	4	8	2	-125/-145	-10	5/30	100	SMD1
TCRO1144	1109-1179	0.5-12	8	6	3	-110/-130	-10	5/25	100	SMD1
TCRO1207	1169-1245	0.5-12	8	6	3	-110/-130	-10	5/25	100	SMD1
TCRO1263	1243-1283	0.5-4.5	12	7	3	-126/-146	-10	5/30	100	SMD1
TCRO1280	1240-1320	0.5-12	8	6	3	-113/-133	-10	5/30	100	SMD1
TCRO1340	1335-1345	0.5-4.5	4	6	2	-125/-145	-10	5/30	100	SMD1
TCRO1391	1381-1401	0.5-4.5	8	5	2	-110/-130	-10	5/30	100	SMD1
TCRO1400	1395-1405	0.5-4.5	4	6	2	-110/-130	-10	5/30	100	SMD1
TCRO1475	1470-1480	0.5-4.5	7	4	2	-121/-141	-10	5/30	100	SMD2
TCRO1490	1485-1495	0.5-4.5	4	6	2	-120/-140	-10	5/30	100	SMD1
TCRO1539.5	1519-1559	0-8	12	2	2	-115/-135	-10	5/30	100	SMD1
TCRO1549	1539-1559	0.5-4.5	8	5	2	-116/-136	-10	5/30	100	SMD1
TCRO1600	1590-1610	0-5	6	10	2	-115/-135	-10	8/36	100	SMD1
TCRO1606.4	1596-1616	0.5-4.5	10	4	2	-117/-137	-10	8/30	100	SMD1
TCRO1731	1691-1771	0.4-5.4	20	4	6	-109/-129	-10	5/30	100	SMD1
TCRO1790	1780-1800	0.5-4.5	6	6	3	-118/-138	-10	5/30	100	SMD1
TCRO1800	1790-1810	0.5-4.5	8	5	3	-117/-137	-15	5/30	56	SMD1
TCRO1820	1810-1830	0.5-4.5	12	7	3	-117/-137	-15	8/30	56	SMD1
TCRO1858	1858	0.5-4.5	4	5	3	-115/-135	-15	8/30	56	SMD1
TCRO1878	1866-1890	0.5-4.5	12	2	3	-115/-135	-15	5/20	56	SMD1
TCRO1900	1890-1910	0.5-4.5	8	6	3	-119/-139	-15	8/30	56	SMD1
TCRO1950	1940-1960	0.5-4.5	10	8	4	-117/-137	-15	8/30	56	SMD1
TCRO2000	1990-2010	0.5-4.5	6	5	4	-118/-138	-15	5/30	56	SMD1
TCRO2040	1030-2050	0.5-4.5	8	6	4	-118/-138	-15	5/30	56	SMD1
TCRO2043.5	1004-2083	0.4-5.4	20	4	6	-109/-129	-15	5/30	56	SMD1

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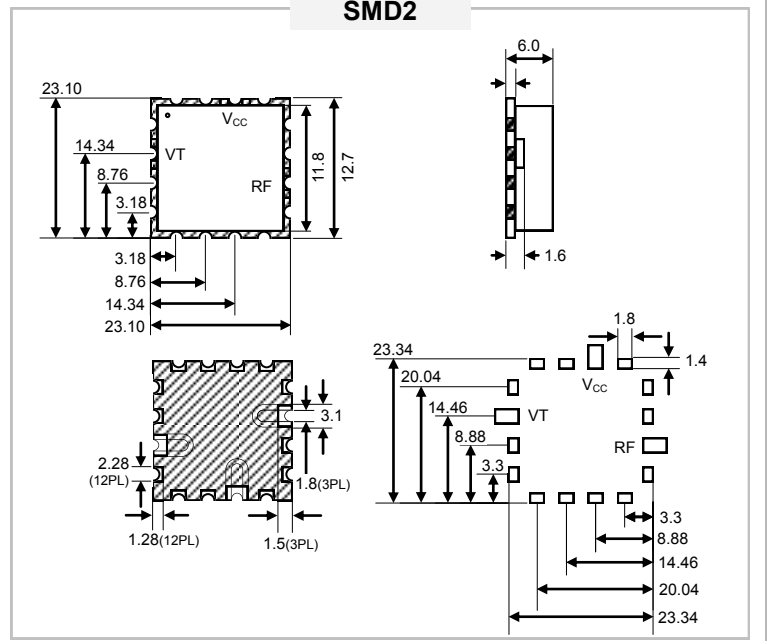
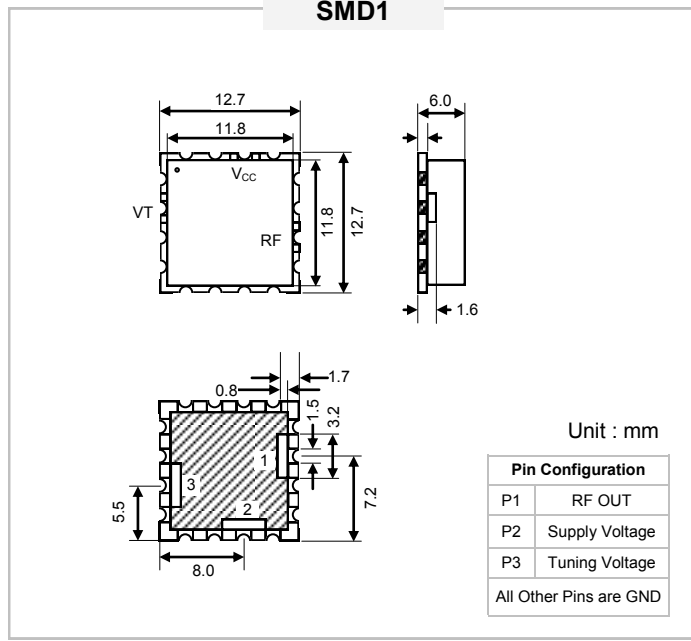
MODEL	FREQ. (MHz)	TUNING VOLTAGE (V)	TUNING SENSITIVITY (MHz/V)	POWER OUTPUT (dBm) Typ	FREQ. DRIFT (MHz) Typ	PHASE NOISE @10/100kHz (dBc/Hz) Typ	HARMONICS (dBc) Typ	POWER SUPPLY (V/mA)max	INPUT CAPACITANCE (pF) Typ	PKG
TCRO2048	2048	0.5-4.5	5	5	4	-120/-140	-15	5/30	56	SMD1
TCRO2057	2047-2067	0.5-4.5	12	3	4	-116/-136	-15	5/30	56	SMD1
TCRO2563W	2375-2715	1-14	25-35	6±2	8	-105/-125	-15	5/30	56	SMD1
TCRO2065	2025-2105	0.4-5.4	20	4	6	-109/-129	-15	5/30	56	SMD1
TCRO2105	2095-2115	0.5-4.5	10	6	4	-117/-137	-15	8/33	56	SMD1
TCRO2130	2120-2140	0.5-4.5	10	7	4	-116/-136	-15	8/28	56	SMD1
TCRO2133	2133	0.5-4.5	7	3	4	-117/-137	-15	5/30	56	SMD1
TCRO2160	2140-2171	0.5-4.5	13	7	4	-116/-136	-15	5/30	56	SMD1
TCRO2185	2171-2199	0.5-4.5	11	3	4	-117/-137	-15	5/30	56	SMD1
TCRO2200	2200	0.5-4.5	7	3	4	-122/-142	-15	5/30	56	SMD2
TCRO2207	2167-2247	0.4-5.4	20	4	6	-109/-129	-15	5/30	56	SMD1
TCRO2225	2215-2235	0.5-4.5	9	2	4	-118/-138	-15	5/30	56	SMD1
TCRO2250	2235-2265	0.5-4.5	15	4	4	-115/-135	-15	5/30	56	SMD1
TCRO2278	2265-2291	0.5-4.5	12	5	4	-117/-137	-15	8/30	56	SMD1
TCRO2300	2290-2310	0.5-4.5	10	5	5	-116/-136	-15	5/30	56	SMD1
TCRO2350	2340-2360	0.5-4.5	10	5	5	-117/-137	-15	5/30	56	SMD1
TCRO2370	2360-2380	0.5-4.5	10	6	5	-115/-135	-15	5/30	56	SMD1
TCRO2387	2377-2397	0.5-4.5	10	6	5	-115/-135	-15	5/30	56	SMD1
TCRO2404	2371-2437	0.4-5.4	20	4	8	-109/-129	-15	5/30	56	SMD1
TCRO2425	2400-2450	0.5-4.5	20	6	8	-115/-135	-15	5/30	56	SMD1
TCRO2500	2480-2520	0.5-4.5	20	6	8	-115/-135	-15	5/30	56	SMD1
TCRO2550	2530-2570	0.5-4.5	20	5	8	-114/-134	-15	5/30	56	SMD1
TCRO2560	2540-2580	0.5-4.5	20	5	8	-114/-134	-15	8/28	56	SMD1
TCRO2575	2555-2595	0.5-4.5	19	3	8	-113/-133	-15	5/30	56	SMD1
TCRO2600	2590-2610	0.5-4.5	6	5	5	-114/-134	-15	5/30	56	SMD1
TCRO2630	2630	0.5-4.5	5	5	5	-119/-139	-15	5/30	56	SMD1
TCRO2640	2620-2660	0.5-4.5	20	5.4	8	-113/-133	-15	5/30	56	SMD1
TCRO2677	2657-2697	0.5-4.5	20	6	8	-113/-133	-15	8/30	56	SMD1
TCRO2680	2680	0.5-4.5	7	7	6	-115/-135	-15	5/30	56	SMD1
TCRO2700	2690-2710	0.5-4.5	12	8	6	-114/-134	-15	8/30	56	SMD1
TCRO2720	2705-2735	0.5-4.5	18	6	6	-113/-133	-15	5/30	56	SMD1
TCRO2735	2730-2740	0.5-4.5	5	6	5	-117/-137	-15	5/30	56	SMD1
TCRO2750	2730-2770	0.5-4.5	15	6	8	-112/-132	-15	5/30	56	SMD1
TCRO2750W	2500-3000	0-15	25-45	5±2	8	-100/-120	-15	5/30	56	SMD1
TCRO2780	2760-2800	0.5-4.5	15	6	8	-112/-132	-15	5/30	56	SMD1
TCRO2800	2795-2805	0-5	5	9	5	-119/-139	-15	8/28	56	SMD1
TCRO2825	2810-2840	0.5-4.5	13	5	6	-115/-135	-15	5/30	56	SMD1
TCRO2850	2845-2855	0.5-4.5	6	5	5	-117/-137	-15	5/25	56	SMD1
TCRO2880	2860-2900	0.5-4.5	23	5	8	-111/-131	-15	9/30	56	SMD1
TCRO2900	2900	0.5-4.5	7	5	5	-116/-136	-15	5/30	56	SMD1
TCRO2920	2900-2940	0.5-4.5	24	4	8	-112/-132	-15	9/30	56	SMD1
TCRO2973	2968-2978	0.5-4.5	5	4	6	-119/-139	-15	5/30	56	SMD1
TCRO2990	2962-3018	0.5-4.5	27	6	8	-110/-130	-15	9/30	56	SMD1

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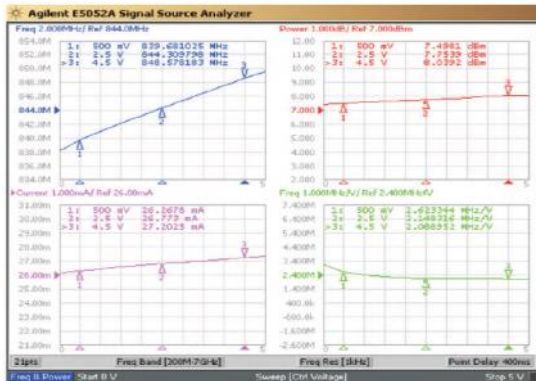
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TCRO3000	2995-3005	0.5-4.5	5	6	6	-115/-135	-15	5/30	56	SMD1
TCRO346	3018-3074	0.5-4.5	29	5	8	-111/-131	-15	9/30	56	SMD1
TCRO3052.5	3052.5	0.5-4.5	8	6	6	-116/-136	-15	5/30	56	SMD1
TCRO3100	3070-3130	0-12	9	6	6	-112/-132	-15	5/30	56	SMD1
TCRO3100W	2900-3300	0-15	20-40	5±2	10	-102/-132	-15	5/30	56	SMD1
TCRO3135	3100-3170	0.5-4.5	26	8	8	-109/-129	-15	9/30	56	SMD1
TCRO3150	3145-3155	0.5-4.5	8	6	6	-113/-133	-15	5/30	56	SMD1
TCRO3175	3165-3185	0.5-4.5	8	6	6	-114/-134	-15	5/30	56	SMD1
TCRO3200	3190-3210	0.5-4.5	10	8	6	-114/-134	-15	5/30	56	SMD1
TCRO3228	3200-3255	0.5-4.5	20	9	9	-112/-132	-15	9/30	56	SMD1
TCRO3250	3240-3260	0.5-4.5	13	8	6	-112/-132	-15	5/30	56	SMD1
TCRO3300	3295-3305	0.5-4.5	9	6	6	-111/-131	-15	5/30	56	SMD1
TCRO3317	3293-3340	0.5-4.5	16	5	8	-112/-132	-15	5/30	56	SMD1
TCRO3330	3320-3340	0.5-4.5	8	6	6	-110/-130	-15	5/30	56	SMD1
TCRO3340	3330-3350	0.5-4.5	16	9	7	-112/-132	-15	5/30	56	SMD1
TCRO3350	3340-3360	0.5-4.5	16	8	7	-111/-131	-15	5/30	56	SMD1
TCRO3370	3355-3385	0.5-4.5	17	7	7	-112/-132	-15	5/30	56	SMD1
TCRO3420	3410-3430	0.5-4.5	8	10	8	-108/-128	-15	8/30	56	SMD1
TCRO3480	3470-3490	0.5-4.5	10	7	5	-112/-132	-15	5/26	56	SMD1
TCRO3500	3500	0-8	5	9	6	-113/-133	-20	8/30	56	SMD1
TCRO3570	3560-3580	0.5-4.5	10	6	8	-108/-128	-20	5/30	56	SMD1
TCRO3600	3590-3610	0.5-4.5	10	4	8	-106/-126	-20	5/30	56	SMD1
TCRO3620	3610-3630	0.5-4.5	8	7	6	-110/-130	-20	5/28	56	SMD1
TCRO3670	3665-3775	0.5-4.5	5	6	6	-113/-133	-20	8/30	56	SMD1
TCRO3760	3750-3770	0.5-4.5	8	7	6	-110/-130	-20	5/28	56	SMD1
TCRO3800	3790-3810	0.5-4.5	8	7	6	-108/-128	-20	5/30	56	SMD1
TCRO3862.5	3862.5	0.5-4.5	5	7	6	-108/-128	-20	5/30	56	SMD1
TCRO3890	3880-3900	0.5-4.5	8	7	6	-106/-126	-20	5/30	56	SMD1
TCRO3898	3888-3908	0.5-4.5	10	6	8	-106/-126	-20	5/30	56	SMD1
TCRO3900	3890-3910	0.5-4.5	12	7	8	-107/-127	-20	5/30	56	SMD1
TCRO4000	3995-4005	0.5-4.5	6	4	8	-108/-128	-20	5/30	56	SMD1
TCRO4050	4045-4055	0.5-4.5	6	4	8	-107/-127	-20	5/25	56	SMD1
TCRO4100	4100	0-5	8	6	10	-105/-125	-20	12/30	56	SMD1
TCRO4220	4220	0.5-4.5	8	5	10	-108/-128	-20	5/30	56	SMD1
TCRO4300	4290-4310	0.5-4.5	10	5	14	-102/-122	-20	5/25	56	SMD1
TCRO4350	4340-4360	0.5-4.5	10	5	14	-102/-122	-20	5/25	56	SMD1
TCRO4400	4400	0.5-4.5	4	5	8	-108/-128	-20	5/30	56	SMD1
TCRO4700	4695-4705	0.5-4.5	5	6	10	-105/-125	-20	5/25	56	SMD1
TCRO4800	4780-4820	0-12	8	2	14	-102/-122	-20	5/30	56	SMD1
TCRO5000	5000	0.5-4.5	9	2	16	-103/-123	-20	5/30	56	SMD1
TCRO5120	5120	0.5-4.5	10	5	18	-100/-120	-20	5/30	56	SMD1

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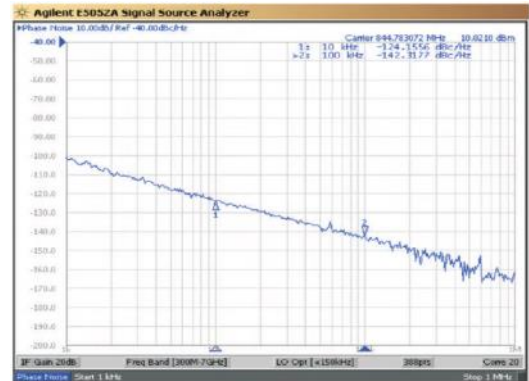
PACKAGE DIMENSION



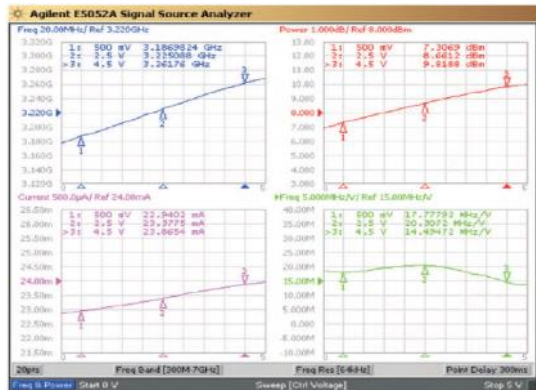
TYPICAL PERFORMANCE (Tested by E5052A of Agilent)



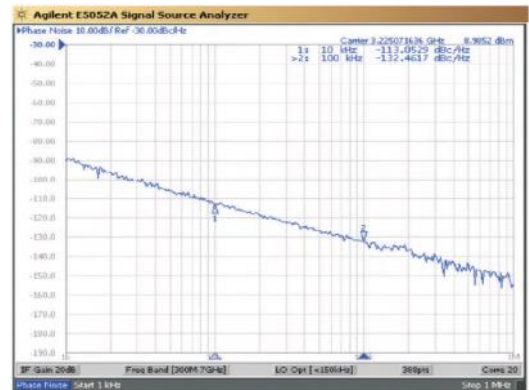
Frequency/power, tuning sensitivity, current of TCRO845



Phase noise of TCRO845



Frequency/power, tuning sensitivity, current of TCRO3228



Phase noise of TCRO3228

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