

11. PLL Synthesizer



FEATURE

- Excellent Phase Noise & Spurious
- Frequency Range 20MHz~6GHz
- Low Cost & Custom Design

APPLICATION

- TETRA, GSM, WCDMA, LTE, 5G
- Up/Down Converter
- Clock & Data Retiming Circuit



■ PLL Synthesizer

PLL Synthesizer Module

Part Number	Frequency (MHz)	Supply Voltage (Vdc)	Output Power (dBm)	Current (mA)	2'nd Harmonic (dBc)	Step Size (KHz)	Spurious (dBc)	Phase Noise @25kHz (dBc/Hz)	Dim. (WxLxH) (mm)
RTPA2-26B	26	5.0	1.0	20	-15	50	-70	-110@25KHz	19.5x19.5x6.5
RTPA2-65	65.04	5.0	10.0	30	-20	20	-70	-116@25KHz	19.5x19.5x6.5
RTPS3-82B	82±5	5.0	0.0	11	-	25	-70	-113@10KHz	15.5x15.5x4.0
RTPS3-85B	80~90	5.0	5.0	30	-20	20	-65	-105@10KHz	15.5x15.5x4.0
RTPS3-90B	80~100	5.0	5.0	30	-20	20	-65	-105@10KHz	15.5x15.5x4.0
RTPM1-95B	95±1	5.0	0.0	16	-	50	-70	-116@10KHz	14.0x14.5x 4.0
RTPS3-100B	99~101	5.0	5.0	30	-20	20	-65	-105@10KHz	15.5x15.5x4.0
RTPM1-102B	102±2	5.0	0.0	14	-	10	-70	-115@10KHz	14.0x14.5x 4.0
RTPM1-137B	137±1	5.0	0.0	19	-	10	-70	-116@10KHz	14.0x14.5x 4.0
RTPS3-138B	138±2	5.0	4.0	17	-	50	-70	-115@10KHz	19.5x9.5x6.5
RTPM1-147B	147±1	5.0	0.0	15	-	10	-70	-115@10KHz	14.0x14.5x 4.0
RTPA2-150B	140 ~ 160	5.0	3.0	20	-26	25	-70	-112@25KHz	19.5x19.5x6.5
RTPS1-310B	310	5.0	0.0	18	-20	50	-70	-113@10KHz	15.5x15.5x4.0
RTPA2-338B	328 ~ 348	5.0	6.5	30	-20	10	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-388B	387.82	5.0	5.0	30	-20	10	-65	-107@10KHz	19.5x19.5x6.5
RTPA6-403	403.18	5.0	5.0	30	-20	10	-65	-107@10KHz	19.5x19.5x6.5
RTPA2-420	415 ~ 425	5.0	10.0	30	-20	12.5	-70	-112@25KHz	19.5x19.5x6.5
RTPA2-452B	422 ~ 482	5.0	5.0	24	-24	50	-70	-101@25KHz	19.5x19.5x6.5
RTPA2-510	505 ~ 515	5.0	9.0	30	-20	12.5	-70	-110@25KHz	19.5x19.5x6.5
RTPA2-539	539.14	5.0	7.0	30	-20	20	-70	-112@25KHz	19.5x19.5x6.5
RTPA2-652B	634 ~ 651	5.0	5.0	30	-20	25	-70	-110@25KHz	19.5x19.5x6.5
RTPA2-655B	645 ~ 665	5.0	4.5	22	-35	50	-70	-108@25KHz	19.5x19.5x6.5
RTPA2-698B	679 ~ 714	5.0	5.0	20	-20	25	-70	-113@10KHz	19.5x19.5x6.5
RWPH1-775	700 ~ 850	15~18	8.0	25	-22	200	-70	-87@10KHz	79x80x20
RTPA2-724B	710 ~ 738	5.0	5.0	25	-20	30	-65	-107@10KHz	19.5x19.5x6.5
RTPA2-752	710 ~ 740	5.0	7.0	30	-20	12.5	-70	-112@25KHz	19.5x19.5x6.5
RTPM1-746B	727 ~ 765	5.0	0.0	22	-20	12.5	-70	-108@10KHz	14.0x14.5x4.0
RTPA2-758	740 ~ 775	5.0	7.0	30	-20	100	-70	-110@25KHz	19.5x19.5x6.5
RTPA2-767JR	754 ~ 779	5.0	6.0	20	-20	10	-70	-108@10KHz	19.5x19.5x6.5
RTPM1-813B	766 ~ 860	5.0	0.0	22	-20	12.5	-70	-102@10KHz	14.0x14.5x4.0
RTPA7-833R	820 ~ 845	5.0	8.0	30	-20	100	-70	-110@25KHz	19.5x19.5x6.5
RTPA2-833	820 ~ 845	5.0	4.0	30	-20	50	-70	-110@25KHz	19.5x19.5x6.5
RTPA2-878B	865 ~ 890	5.0	4.0	30	-20	50	-70	-110@25KHz	19.5x19.5x6.5
RTPA2-894C	868 ~ 920	5.0	5.0	30	-20	25	-70	-107@10KHz	19.5x19.5x6.5
RTPA2-882E	869 ~ 894	5.0	5.0	20	-20	30	-65	-107@10KHz	19.5x19.5x6.5
RTPM1-880B	870~890	5.0	0.0	25	-20	12.5	-70	-109@10KHz	14.0x14.5x4.0
RTPM1-906B	887~925	5.0	0.0	24.	-20	12.5	-70	-108@10KHz	14.0x14.5x4.0
RTPA2-910B	900 ~ 920	5.0	5.5	19	-20	50	-70	-108@10KHz	19.5x19.5x6.5
RTPA2-944B	932~956	5.0	5.0	20	-20	25	-65	-101@25KHz	19.5x19.5x6.5
RTPA2-952JR	939 ~ 964	5.0	5.5	20	-20	10	-70	-108@10KHz	19.5x19.5x6.5
RTPA2-965B	952 ~ 977	5.0	5.0	20	-20	30	-65	-107@10KHz	19.5x19.5x6.5

■ PLL Synthesizer

PLL Synthesizer Module

Part Number	Frequency (MHz)	Supply Voltage (Vdc)	Output Power (dBm)	Current (mA)	2'nd Harmonic (dBc)	Step Size (KHz)	Spurious (dBc)	Phase Noise @25kHz (dBc/Hz)	Dim. (WxLxH) (mm)
RTPM1-976B	957 ~ 995	5.0	0	24	-20	12.5	-70	-108@10KHz	14.0x14.5x4.0
RTPA3-974	958.5~988.5	5.0	2.0	19	-20	25	-70	-108@10KHz	19.5x19.5x6.5
RTPA7-995	960~1030	5.0	5.0	20	-20	25	-65	-101@10KHz	19.5x19.5x6.5
RTPS1-984B	974 ~ 994	5.0	2.0	23	-20	12.5	-70	-107@10KHz	15.5x15.5x4.0
RTPA7-1018	1005~1030	5.0	6.0	50	-20	100	-70	-105@10KHz	19.5x19.5x6.5
RTPA2-1018E	1004.5~1030.5	5.0	3.0	20	-20	10	-70	-107@10KHz	19.5x19.5x6.5
RTPA2-1018	1005~1030	5.0	3.0	30	-20	100	-70	-110@25KHz	19.5x19.5x6.5
RTPA2-1018B	1005~1030	5.0	4.0	14	-20	100	-70	-111@25KHz	19.5x19.5x6.5
RTPA2-1039	1025~1039	5.0	2.0	50	-20	30	-70	-106@10KHz	19.5x19.5x6.5
RTPA2-1039B	1025~1053	5.0	5.0	20	-20	30	-70	-105@10KHz	19.5x19.5x6.5
RTPA2-1049B	1048.5	5.0	4.0	30	-20	100	-70	-110@25KHz	19.5x19.5x6.5
RTPA3-1049	1049~1109	5.0	2.0	22	-20	25	-70	-104@10KHz	19.5x19.5x6.5
RTPA2-1083	1065~1100	5.0	7.0	30	-20	100	-70	-110@25KHz	19.5x19.5x6.5
RTPA7-1083	1065~1100	5.0	7.0	20	-20	100	-65	-103@25KHz	19.5x19.5x6.5
RTPA3-1344	1329~1359	5.0	2.0	24	-20	10	-70	-105@10KHz	19.5x19.5x6.5
RTPA7-1420	1340~1500	5.0	0.0	20	-20	100	-65	-96@10KHz	19.5x19.5x6.5
RTPA2-1502	1464~1539	5.0	3.0	30	-20	100	-70	-98@10KHz	19.5x19.5x6.5
RTPA7-1600	1500~1700	5.0	0.0	20	-20	100	-65	-96@10KHz	19.5x19.5x6.5
RTPA2-1597	1559~1634	5.0	3.0	30	-20	100	-70	-98@10KHz	19.5x19.5x6.5
RTPA7-1608	1570~1645	5.0	3.0	20	-20	100	-70	-100@25KHz	19.5x19.5x6.5
RTPA-1645R	1630~1660	5.0	4.0	24	-30	20	-70	-110@25KHz	19.5x19.5x6.5
RTPA2-1670	1640~1700	5.0	4.0	30	-20	100	-70	-105@25KHz	19.5x19.5x6.5
RTPA2-1670R	1640~1700	5.0	3.0	30	-20	100	-70	-105@25KHz	19.5x19.5x6.5
RTPA2-1685	1670~1700	5.0	2.0	30	-20	50	-70	-110@25KHz	19.5x19.5x6.5
RTPS1-1690	1680~1700	5.0	1.5	25	-20	50	-70	-105@10KHz	15.5x15.5x4.0
RTPA2-1695	1680~1710	5.0	5.0	25	-20	50	-70	-106@10KHz	19.5x19.5x19.5
RTPA2-1700	1690~1710	5.0	2.0	30	-20	50	-70	-110@25KHz	19.5x19.5x6.5
RTPA2-1705	1690~1720	5.0	4.0	24	-20	50	-70	-105@10KHz	19.5x19.5x6.5
RTPA3-1730	1725~1735	5.0	3.0	28	-20	10	-70	-102@10KHz	19.5x19.5x6.5
RTPA2-1755JR	1725~1785	5.0	3.0	30	-20	100	-70	-105@25KHz	19.5x19.5x6.5
RTPS1-1760	1730~1790	5.0	0.0	24	-20	200	-70	-103@10KHz	15.5x15.5x4.0
RTPA2-1790	1760~1820	5.0	1.0	30	-20	50	-70	-110@25KHz	19.5x19.5x6.5
RTPA3-1810	1780~1840	5.0	3.0	25	-20	10	-70	-101@10KHz	19.5x19.5x6.5
RTPA3-1900	1870~1930	5.0	3.0	25	-20	10	-70	-100@10KHz	19.5x19.5x6.5
RTPA2-1905JR	1875~1935	5.0	2.0	30	-20	50	-70	-100@10KHz	19.5x19.5x6.5
RTPA2-1905	1875~1935	5.0	2.0	30	-20	100	-70	-105@25KHz	19.5x19.5x6.5
RTPA7-1905R	1875~1905	5.0	2.0	30	-20	100	-70	-105@25KHz	19.5x19.5x6.5
RTPA7-2050J	1900~2200	5.0	0.0	30	-20	100	-65	-90@10KHz	19.5x19.5x6.5
RTPA2-1925	1915~1935	5.0	4.0	24	-28	20	-70	-104@10KHz	19.5x19.5x6.5
RTPA2-1973	1930~2015	5.0	2.0	20	-20	50	-65	-97@10KHz	19.5x19.5x6.5
RTPA7-1983	1945~2020	5.0	3.0	20	-20	100	-70	-100@25KHz	19.5x19.5x6.5

■ PLL Synthesizer

PLL Synthesizer Module

Part Number	Frequency (MHz)	Supply Voltage (Vdc)	Output Power (dBm)	Current (mA)	2'nd Harmonic (dBc)	Step Size (KHz)	Spurious (dBc)	Phase Noise @25kHz (dBc/Hz)	Dim. (WxLxH) (mm)
RTPA2-2043	2035~2050	5.0	3.5	24	-33	100	-70	-99@10KHz	19.5x19.5x6.5
RTPA2-2125	2080~2170	5.0	2.0	20	-20	50	-65	-97@10KHz	19.5x19.5x6.5
RTPA7-2163	2110~2215	5.0	0.0	20	-30	100	-65	-92@10KHz	19.5x19.5x6.5
RTPA3-2165	2135~2195	5.0	0.0	26	-30	10	-70	-97@10KHz	19.5x19.5x6.5
RTPA7-2210	2180~2240	5.0	0.0	20	-30	50	-65	-92@10KHz	19.5x19.5x6.5
RTPA6-2302	2302.20	5.0	3.0	30	-20	-	-65	-100@10KHz	19.5x19.5x6.5
RTPA7-2375L	2200~2550	5.0	0.0	30	-20	100	-65	-90@10KHz	19.5x19.5x6.5
RTPS1-2330	2315~2345	5.0	0.5	24	-30	200	-70	-91@10KHz	15.5x15.5x4.0
RTPA2-2442	2400~2484	5.0	2.5	29	-25	100	-70	-99@10KHz	19.5x19.5x6.5
RTPA7-2442	2400~2483.5	5.0	2.0	20	-20	100	-65	-90@10KHz	19.5x19.5x6.5
RTPA7-2495	2460~2530	5.0	0.0	20	-30	100	-65	-90@10MHz	19.5x19.5x6.5
RTPA7-2350J	2350±50	5.0	0.0	24	-20	100	-70	-99@10KHz	19.5x19.5x6.5
RTPA7-2440	2440±40	5.0	0.0	21	-20	20	-70	-94@10KHz	19.5x19.5x6.5
RTPA3-2510	2470~2550	5.0	0.0	27	-30	50	-70	-94@10KHz	19.5x19.5x6.5
RTPA7-2543	2543±60	5.0	0.0	23	-20	50	-70	-93@10KHz	19.5x19.5x6.5
RTPA7-2548	2548±25	5.0	0.0	23	-20	200	-70	-97@10KHz	19.5x19.5x6.5
RTPA7-2600	2500~2700	5.0	0.0	20	-20	100	-65	-93@10KHz	19.5x19.5x6.5
RTPA7-2643J	2643±10	5.0	0.0	25	-20	100	-70	-94@10KHz	19.5x19.5x6.5
RTPA7-2643	2643±15	5.0	0.0	24	-20	500	-70	-96@10KHz	19.5x19.5x6.5
RTPA7-2740	2740±30	5.0	0.0	20	-20	30	-70	-95@10KHz	19.5x19.5x6.5
RTPA7-3225	3200~3250	5.0	0.0	25	-	125	-70	-93@10KHz	19.5x19.5x6.5
RTPA2-3360	3330~3390	5.0	0.0	25	-	125	-70	-95@10KHz	19.5x19.5x6.5
RTPA3-4538	4460~4615	5.0	5.0	30	-	500	-65	-79@10KHz	19.5x19.5x6.5
RTPA3-4900	4897.5~4902.5	5.0	0.0	25	-	50	-70	-85@10KHz	19.5x19.5x6.5
RTPA3-4900	4900±5	5.0	0.0	45	-	50	-70	-85@10KHz	19.5x19.5x6.5
RTPA3-5000	5000±50	5.0	0.0	40	-	500	-70	-84@10KHz	19.5x19.5x6.5
RTPA3-5545	5545±50	5.0	2.0	40	-	500	-70	-84@10KHz	19.5x19.5x6.5
RTPA3-5688	5688±60	5.0	0.0	40	-	100	-70	-86@10KHz	19.5x19.5x6.5
RTPA3-5788	5788±60	5.0	0.0	40	-	100	-70	-86@10KHz	19.5x19.5x6.5
RTPA3-5800	5800±50	5.0	2.0	35	-	1000	-70	-84@10KHz	19.5x19.5x6.5
RTPA3-5800	5750~5850	5.0	2.0	30	-25	500	-65	-84@10kHz	19.5x19.5x6.5
RTPA3-5840	5820~5860	5.0	2.0	46	-20	1000	-40	-77@10KHz	19.5x19.5x6.5
RPJ1-6900	6700~7100	15~18	10.0	-	-20	0.8	-60	-92@10KHz	132x90x22
RPJ1-9375	9000~9750	18.0	10.0	300	-20	1.2	-5.5	-95@10KHz	165x83x22
RPJ1-10125	9750~10500	18.0	10.0	300	-20	1.2	-5.5	-95@10KHz	165x83x22

■ PLL Synthesizer

Single Fixed PLL Module

Part Number	Frequency (MHz)	Supply Voltage (Vdc)	Output Power (dBm)	Current (mA)	2 nd Harmonic (dBc)	Spurious (dBc)	Phase Noise @25kHz (dBc/Hz)	Dim. (WxLxH) (mm)
RTPA4-21B	21.4	5.0	5.0	18	-20	-70	-117@25KHz	19.5x19.5x6.5
RTPA6-30B	30	5.0	8.0	12	-	-70	-116@25KHz	19.0x19.0x5.7
RTPA6-50D	50	5.0	6.0	18	-	-70	-115@25KHz	19.0x19.0x5.7
RTPA6-66D	65.536	5.0	8.0	17	-	-70	-116@25KHz	19.0x19.0x5.7
RTPA6-67B	67.1	5.0	0.0	11	-	-70	-115@25KHz	19.0x19.0x5.7
RTPA6-80D	80	5.0	5.0	50	-20	-65	-110@25KHz	19.5x19.5x6.5
RTPA4-100B	100	5.0	0.0	19	-20	-70	-115@25KHz	19.5x19.5x6.5
RTPA4-105B	104.64	5.0	6.0	17	-20	-70	-114@25KHz	19.5x19.5x6.5
RTPA4-160C	160	5.0	5.0	17	-20	-70	-114@25KHz	19.5x19.5x6.5
RTPA4-382B	381.5	5.0	1.0	19	-20	-70	-110@25KHz	19.5x19.5x6.5
RTPA4-770BR	770.2	5.0	7.0	18	-20	-70	-111@25KHz	19.5x19.5x6.5
RTPA4-813B	812.78	5.0	8.0	20	-20	-70	-108@25KHz	19.5x19.5x6.5
RTPA8-930	930.00	5.0	10.0	50	-20	-65	-100@25KHz	19.5x19.5x6.5
RTPA8-930-C	930.00	24.0	10	150	-20	-65	-102@10KHz	59.0x70.0x20.0
RTPA4-955BR	955.2	5.0	7.0	17	-20	-70	-111@25KHz	19.5x19.5x6.5
RTPA4-1040J	1040	5.0	7.0	21	-20	-70	-105@25KHz	19.5x19.5x6.5
RTPA6-1121.5	1121.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1131.5	1131.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1141.5	1141.50	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1176.5	1176.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1186.5	1186.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1197.5	1197.50	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1207.5	1207.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1216	1216.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1242.5	1242.50	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1261	1261.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1266.5	1266.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1287.5	1287.50	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1291.9	1291.9	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1297.5	1297.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1303.1	1303.1	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1311.5	1311.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1312.5	1312.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1318.2	1.18.2	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1327.5	1327.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1336.9	1336.9	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1348.1	1348.1	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1356.5	1356.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1363.2	1363.2	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1357.5	1357.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1372.5	1372.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1377.5	1377.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1386.9	1386.9	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5

■ PLL Synthesizer

Single Fixed PLL Module

Part Number	Frequency (MHz)	Supply Voltage (Vdc)	Output Power (dBm)	Current (mA)	2 nd Harmonic (dBc)	Spurious (dBc)	Phase Noise @25kHz (dBc/Hz)	Dim. (WxLxH) (mm)
RTPA6-1398.1	1398.1	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1401.5	1401.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1402.5	1402.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1408.2	1408.2	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1413.2	1413.2	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1417.5	1407.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RPA6-1415.0	1415.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1426.9	1426.9	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1427.5	1427.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1431.9	1431.9	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1432.5	1432.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1440.	1440	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1442.5	1442.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1447.5	1447.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1443.1	1443.1	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1450.0	1450.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1452.5	1452.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1453.2	1453.2	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1455.0	1455.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1458.2	1458.2	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1460	1460	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1472.5	1472.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA1477.5	1477.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1485	1485.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1487.5	1487.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1495	1495.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1500	1500	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1512.5	1512.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
TPA6-1557.5	1557.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1580	1580.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1592.5	1592.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA4-1614.0	1614	5.0	3.0	50	-20	--70	-105@10KHz	19.5x19.5x6.5
RTPA6-1619.0	1619.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA4-1621.5	1621.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1637.5	1637.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1662.5	1662.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1650	1650.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1664.0	1664.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA4-1675.0	1675.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-1677.5	1677.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA4-1685J	1685	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA4-1795JR	1795	5.0	2.0	21 typ..	-20	-70	-104@25KHz	19.5x19.5x6.5
RTPA4-1799	1799.10	5.0	0.0	20	-20	-65	-101@25KHz	19.5x19.5x6.5
RTPA4-1844	1844.10	5.0	0.0	20	-20	-65	-101@25KHz	19.5x19.5x6.5

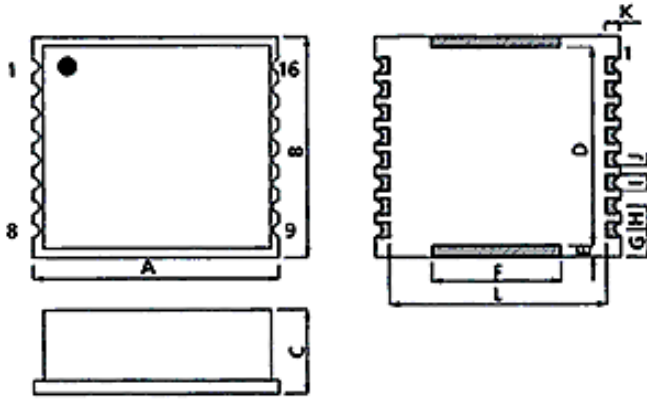
■ PLL Synthesizer

Single Fixed PLL Module

Part Number	Frequency (MHz)	Supply Voltage (Vdc)	Output Power (dBm)	Current (mA)	2'nd Harmonic (dBc)	Spurious (dBc)	Phase Noise @25kHz (dBc/Hz)	Dim. (WxLxH) (mm)
RTPA4-1849.0	1849.0	5.0	3.0	50	-20	-65	-104@10KHz	19.5x19.5x6.5
RTPA4-1894.0	1894.0	5.0	3.0	50	-20	-65	-104@10KHz	19.5x19.5x6.5
RTPA4-1856.5	1856.5	5.0	3.0	50	-20	-65	-104@10KHz	19.5x19.5x6.5
RTPA4-1940J	1940	5.0	3.0	21	-20	-70	-104@25KHz	19.5x19.5x6.5
RTPA6-2017.5	2017.5	5.0	3.0	50	-20	-70	-100@10KHz	19.5x19.5x6.5
RTPA4-2060J	2060	5.0	1.0	21	-20-	-70	-100@25KHz	19.5x19.5x6.5
RTPA6-2071.9	2071.9	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-2121.9	2121.9	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-2152.5	2152.5	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-2166.9	2166.9	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-2176.0	2176.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA4-2196	2196.00	5.0	0.0	20	-20	-65	-98@25KHz	19.5x19.5x6.5
RTPA6-2157.5	2157.5	5.0	3.0	50	-20	-65	-105@10KHz	19.5x19.5x6.5
RTPA6-2177.2	2177.2	5.0	3.0	50	-20	-65	-105@10KHz	19.5x19.5x6.5
RTPA6-2193.2	2193.2	5.0	3.0	50	-20	-65	-105@10KHz	19.5x19.5x6.5
RTPA6-2202.2	2202.2	5.0	3.0	50	-20	-65	-105@10KHz	19.5x19.5x6.5
RTPA4-2218R	2218	5.0	3.0	20	-20	-70	-99@25KHz	19.5x19.5x6.5
RTPA6-2221.0	2221.0	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-2222.2	2222.2	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA8-2225-C	2225.00	24.0	14	150	-20	-65	-93@10KHz	59.0x70.0x20.0
RTPA4-2231	2231.00	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA6-2237.2	2237.2	5.0	3.0	50	-20	-70	-105@10KHz	19.5x19.5x6.5
RTPA4-2241	2241.00	5.0	0.0	20	-20	-65	-98@25KHz	19.5x19.5x6.5
RTPA4-2241	2241.00	5.0	0.0	20	-20	-65	-98@25KHz	19.5x19.5x6.5
RTPA6-2257.2	2257.2	5.0	3.0	50	-20	-65	-105@10KHz	19.5x19.5x6.5
RTPA4-2276	2276.10	5.0	3.0	50	-20	-65	-105@10KHz	19.5x19.5x6.5
RTPA6-2282.2	2282.2	5.0	3.0	50	-20	-65	-105@10KHz	19.5x19.5x6.5
RTPA4-2291	2291.0	5.0	0.0	20	-20	-65	-97@25KHz	19.5x19.5x6.5
RTPA4-2296.0	2296.0	5.0	3	50	-20	-65	-100@10KHz	19.5x19.5x6.5
RTPA8-2300-C	2300.00	24.0	14	150	-20	-65	-93@10KHz	59.0x70.0x20.0
RTPA6-2302.2	2302.2	5.0	3.0	50	-20	-65	-105@10KHz	19.5x19.5x6.5
RTPA4-2303.5	2303.5	5.0	3	50	-20	-65	-100@10KHz	19.5x19.5x6.5
RTPA4-2400	2400	5.0	0.0	28	-20	-70	-99@25KHz	19.5x19.5x6.5
RTPA4-2464R	2464	5.0	3.0	20	-20	-70	-99@25KHz	19.5x19.5x6.5
RTPD7-2500R	2500	5.0	0	36	-	-70	-109@10KHz	29.0x30.0x8.0
RTPD7-2513R	2512.5	5.0	0	36	-	-70	-112@10KHz	29.0x30.0x8.0
RTPD7-2560R	2560	5.0	3	36	-	-70	-112@10KHz	29.0x30.0x8.0
RTPD7-2573R	2572.5	5.0	0	36	-	-70	-109@10KHz	29.0x30.0x8.0
RTPD7-2643R	2642.5	5.0	0	36	-	-70	-110@10KHz	29.0x30.0x8.0
RTPD7-3700R	3700	5.0	0	36	-	-70	-101@10KHz	29.0x30.0x8.0
RTPA4-4900	4900	5.0	0.0	33	-20	-70	-86@25KHz	19.5x19.5x6.5

■ PLL Synthesizer

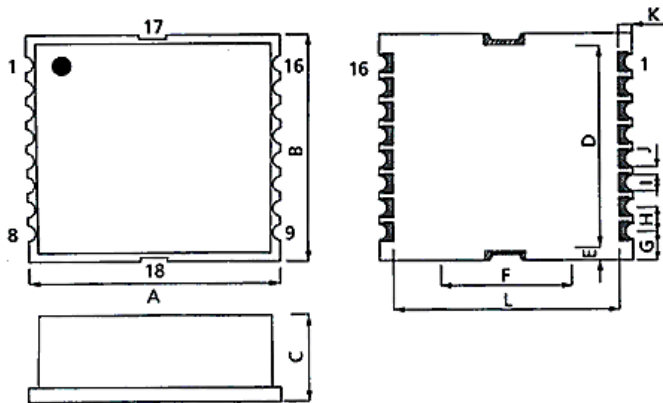
DIMENSION & PIN CONFIGURATION



PA2-package

Dimension (mm)			
A	19.5	G	2.388
B	19.5	H	2.032
C	6.5	I	1.532
D	17.00	J	0.5
E	1.00	K	1.0
F	10.00	tolerance : ± 0.2	

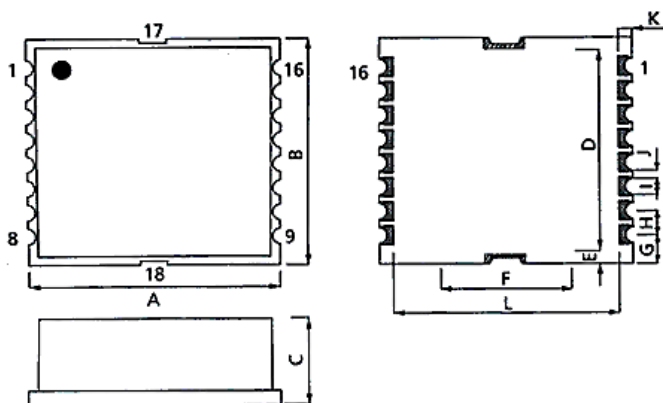
Pin No.	Connection	Pin No.	Connection
1	Clock	9	Vcc
2	Data	13	RF Out
3	Enable	15	Vcp
4	Osc. In	16	Lock Detect
All other pins are Ground			



PA3-package

Dimension (mm)			
A	19.5	G	2.388
B	19.5	H	2.032
C	6.5	I	1.532
D	17.00	J	0.5
E	1.00	K	1.0
F	4.00	tolerance : ± 0.2	

Pin No.	Connection	Pin No.	Connection
1	Osc. In	6	Look Detect
2	Clock	9	Vcc
3	Data	13	RF out
4	Enable	16	Vcp
All other pins are Ground			



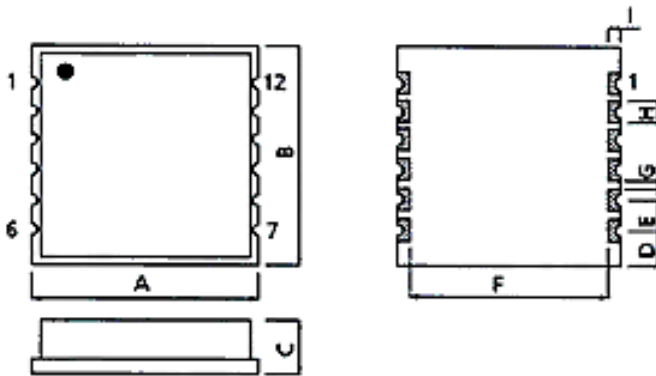
PA4-package

Dimension (mm)			
A	19.5	G	2.388
B	19.5	H	2.032
C	6.5	I	1.532
D	17.00	J	0.5
E	1.00	K	1.0
F	10.00	tolerance : ± 0.2	

Pin No.	Connection	Pin No.	Connection
1	GND	9	Vcc
2	GND	13	RF Out
3	GND	15	Vcp
4	Osc. In	16	Lock Detect
All other pins are Ground			

■ PLL Synthesizer

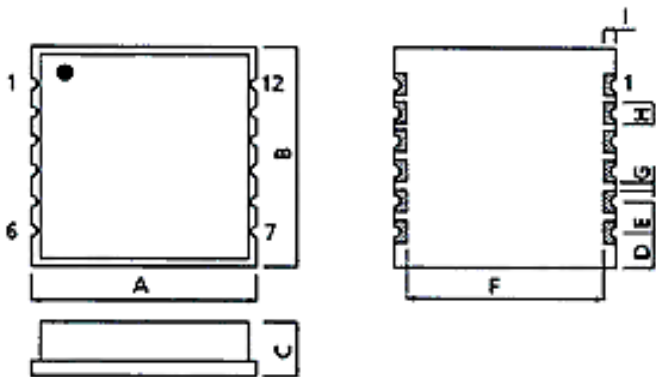
DIMENSION & PIN CONFIGURATION



PS1-package

Dimension (mm)			
A	15.5	F	13.36
B	15.5	G	0.63
C	4.0	H	1.40
D	2.42	I	0.82
E	2.03	tolerance : ± 0.2	

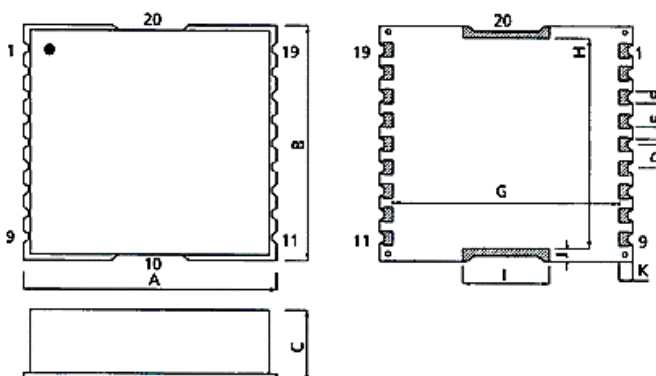
Pin No.	Connection	Pin No.	Connection
1	Clock	7	Vcc
2	Data	9	RF Out
3	Enable	11	Look Detect
4	Osc. In	12	Vcp
All other pins are Ground			



PM1-package

Dimension (mm)			
A	14.0	F	13.36
B	14.5	G	0.63
C	4.0	H	1.40
D	2.42	I	0.82
E	2.03	tolerance : ± 0.2	

Pin No.	Connection	Pin No.	Connection
2	Clock	8	Osc. In
3	Vcc(VCO)	9	Vcp(PLL)
4	Look Detect	10	Data
5	RF Out	11	Enable
All other pins are Ground			



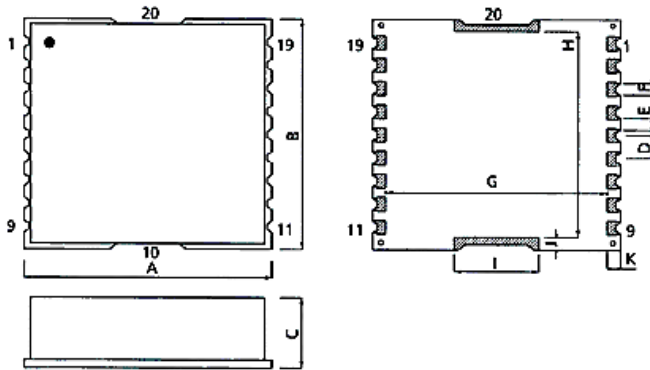
PD3-package

Dimension (mm)			
A	29.0	G	26.0
B	30.0	H	27.0
C	8.0	I	9.8
D	3.0	J	1.5
E	1.1	K	1.5
F	0.9	tolerance : ± 0.2	

Pin No.	Connection	Pin No.	Connection
1	Vcp(PLL)	9	Vcc2
2	Clock	11	Vcc1
3	Data	14	RF1 Out
4	Enable	18	Osc. In
6	RF2 Out	19	Lock Detect
All other pins are Ground			

■ PLL Synthesizer

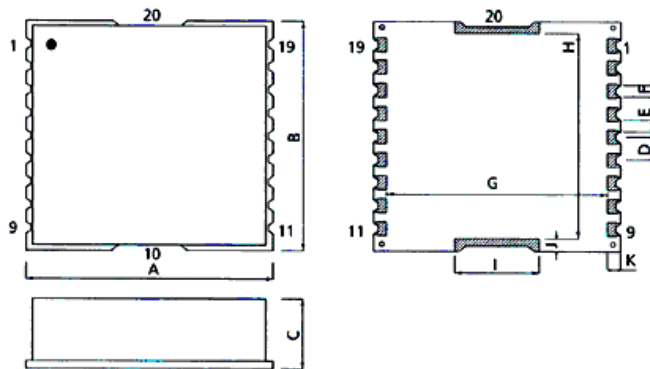
DIMENSION & PIN CONFIGURATION



PD4-package

Dimension (mm)			
A	29.0	G	26.0
B	30.0	H	27.0
C	8.0	I	9.8
D	3.0	J	1.5
E	1.1	K	1.5
F	1.9	tolerance : ± 0.2	

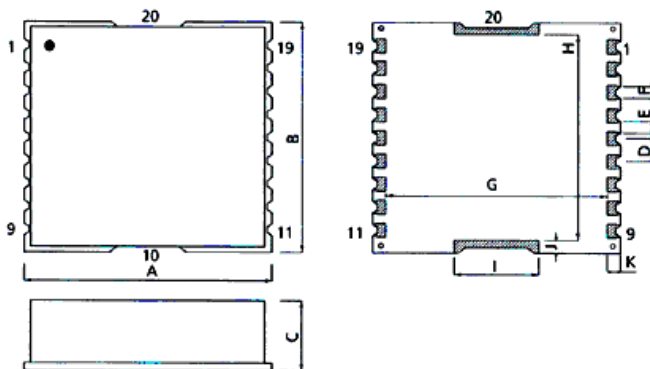
Pin No.	Connection	Pin No.	Connection
1	Vcp	15	RF Out
3	Osc. In	19	Lock Detect
11	Vcc	All other pins are Ground	



PD5-package

Dimension (mm)			
A	29.0	G	26.0
B	30.0	H	27.0
C	8.0	I	9.8
D	3.0	J	1.5
E	1.1	K	1.5
F	1.9	tolerance : ± 0.2	

Pin No.	Connection	Pin No.	Connection
1	Vcp	19	Lock Detect
11	Vcc	All other pins are Ground	
15	RF Out		



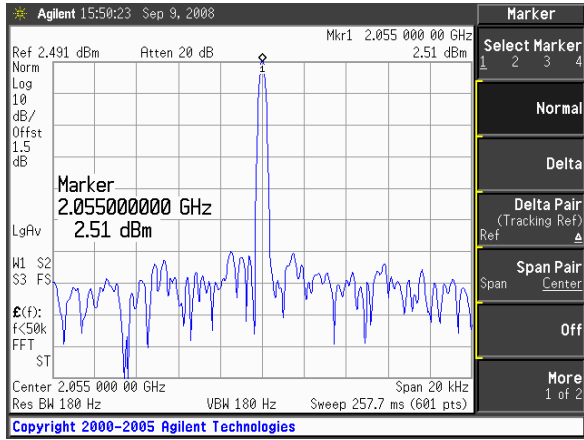
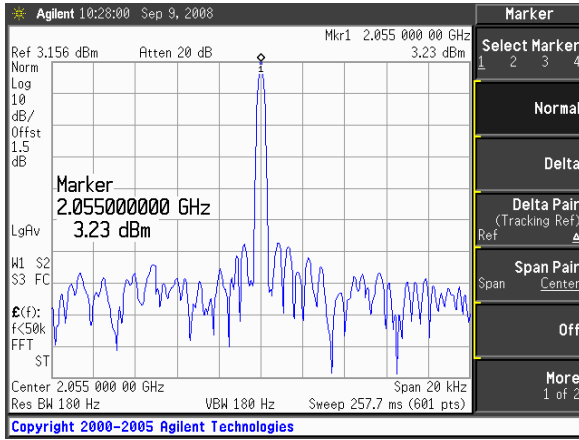
PD7-package

Dimension (mm)			
A	29.0	G	26.0
B	30.0	H	27.0
C	8.0	I	9.8
D	3.0	J	1.5
E	1.1	K	1.5
F	1.9	tolerance : ± 0.2	

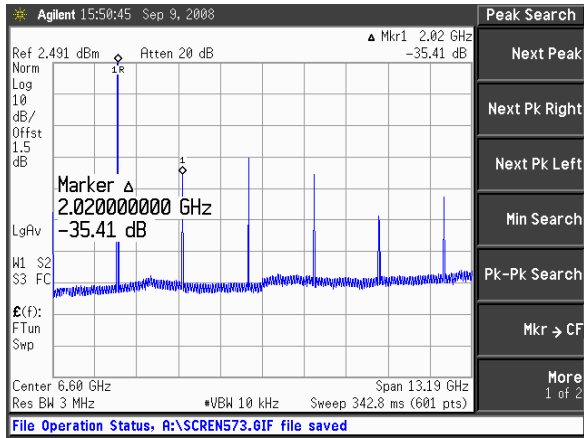
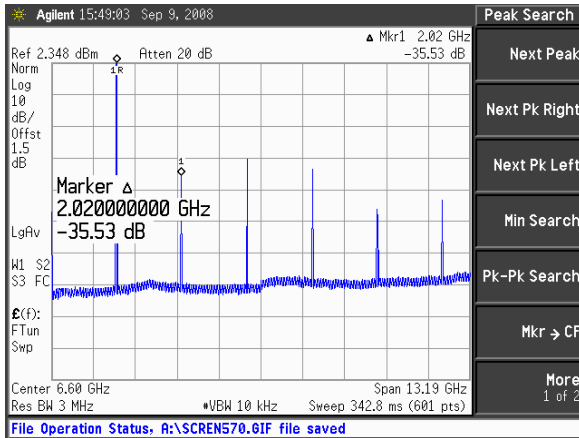
Pin No.	Connection	Pin No.	Connection
1	Vcp	11	Vcc
2	Enable	15	RF Out
3	Data	19	Lock Detect
4	Clock	All other pins are Ground	
5	Osc. In		

■ PLL Synthesizer

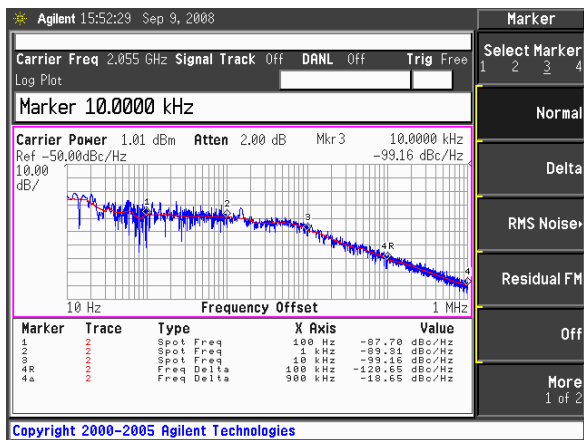
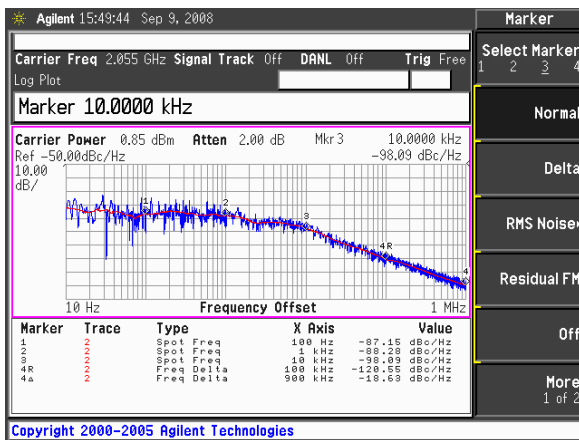
PERFORMANCE



[SPAN 20KHZ]



[Harmonic]



[Phase Noise]