

PLL Synthesizer

(주)알티엑스테크놀로지

Feature

Excellent Phase Noise & Spurious
 Frequency range from 20MHz to 6GHz
 Low Cost & Custom Design
 ALL Harmonics are below -20dBc

Application

Cellular, PCS, UMTS
 UP/Down Converter
 Clock & Data Retiming Circuit
 Point to Multipoint



Specification

Function	RF/Local Frequency	IF/Local Frequency	Structure	Package Type
PLL Modules	20 to 6000MHz	-	VCO+PLL IC	PA3, PA7, PS3, PD1, PM1
PLL Modules (Internal Ref.)	20 to 6000MHz	-	VCO+PLL+TCXO	PA9, PD6
Dual PLL Modules	20 to 6000MHz	20 to 1000MHz	2VCO+Dual PLL IC	PD3
Fixed PLL Modules	20 to 6000MHz	-	VCO+PLL IC+ROM	PA6, PD4, PD7, (Optional EPROM)
Fixed PLL Modules (Internal Ref.)	20 to 6000MHz	-	VCO+PLL IC +ROM+TCXO	PA8, PD5

PLL Synthesizer Module

Specification

Part Number	Frequency Range (MHz)	Supply Voltage (Vdc)	Output Power (dBm.) (typ)	Current Consump. (mA,max)	2 nd Harmonic (dBc,typ)	Step Size (KHz)	Spurious Level (dBc)	Phase Noise @25kHz (dBc/Hz) (max)	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 Module

Specification

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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 Module

Specification

Part Number	Frequency Range (MHz)	Supply Voltage (Vdc)	Output Power (dBm.) (typ)	Current Consump. (mA,max)	2'nd Harmonic (dBc,typ)	Step Size (KHz)	Spurious Level (dBc)	Phase Noise @25kHz (dBc/Hz) (max)	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

Single Fixed PLL Module

Specification

Part Number	Frequency Range (MHz)	Supply Voltage (Vdc)	Output Power (dBm.) (typ)	Current Consump. (mA,max)	2'nd Harmonic (dBc,typ)	Spurious Level (dBc)	Phase Noise @25KHz (dBc/Hz) (max)	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

Single Fixed PLL Module

Specification

Part Number	Frequency Range (MHz)	Supply Voltage (Vdc)	Output Power (dBm.) (typ)	Current Consump. (mA,max)	2 nd Harmonic (dBc,typ)	Spurious Level (dBc)	Phase Noise @25KHz (dBc/Hz) (max)	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

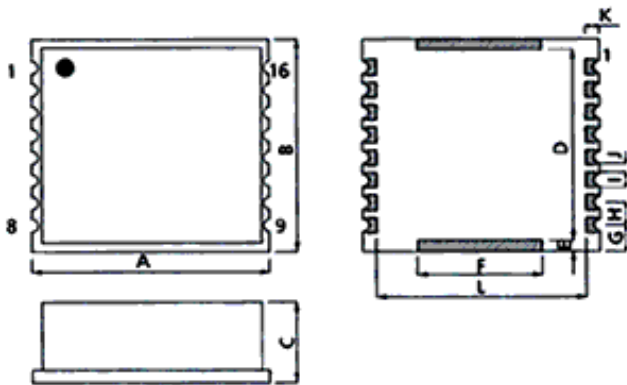
Single Fixed PLL Module

Specification

Part Number	Frequency Range (MHz)	Supply Voltage (Vdc)	Output Power (dBm.) (typ)	Current Consump. (mA,max)	2'nd Harmonic (dBc,typ)	Spurious Level (dBc)	Phase Noise @ 25KHz (dBc/Hz) (max)	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

Mechanical dimensions & Pin configurations

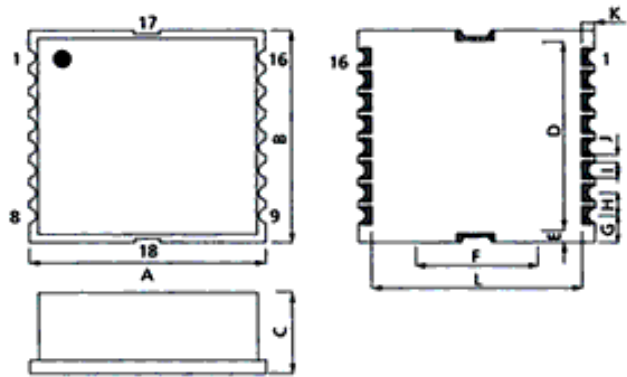
■ PA2-package (19.5 x 19.5 x 6.5)



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	Look Detect
All other pins are GROUND			

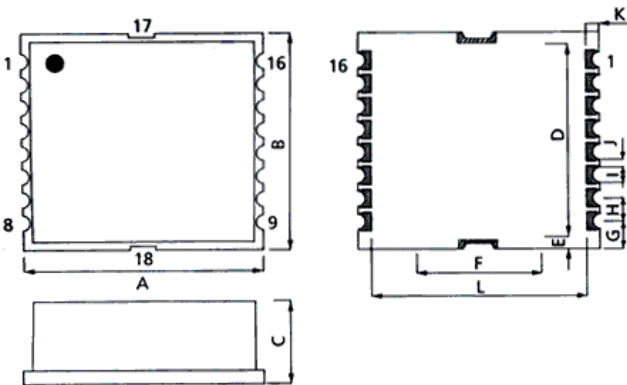
■ PA3-package (19.5 x 19.5 x 6.5)



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 (19.5 x 19.5 x 6.5)

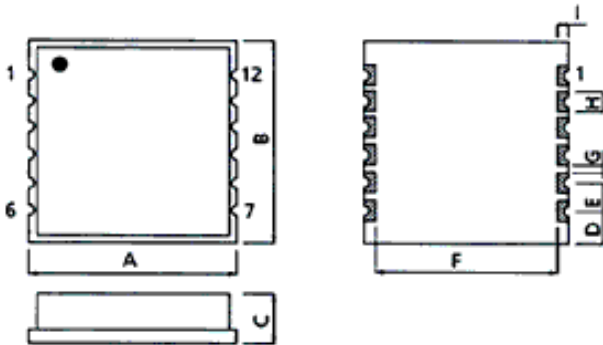


Dimension (mm)			
A	19.5	G	2.388
B	19.5	H	2.032
C	6.5	I	1.532
D	17.00	J	0.5
E	1.00	K	1.0
F	10.00	tolerance : ± 0.2	

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			

Mechanical dimensions & Pin configurations

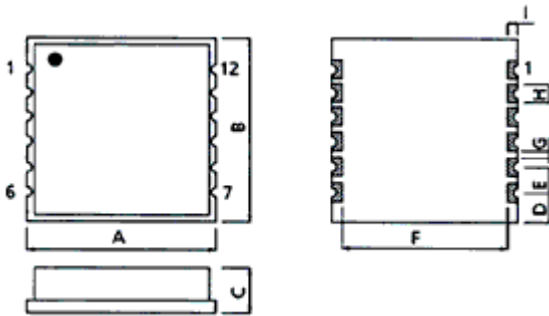
■ PS1-package (15.5 x 15.5 x 4.0)



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			

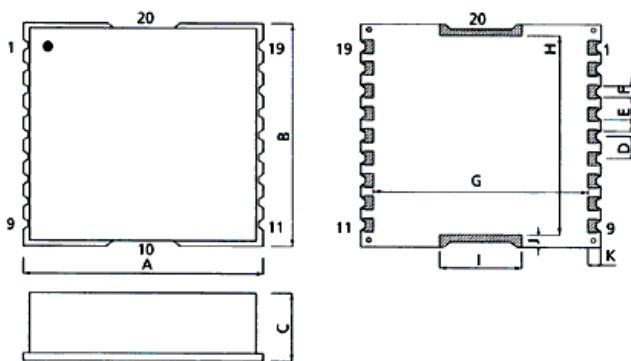
■ PM1-package (14.0 x 14.5 x 4.0)



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 (29.0 x 30.0 x 8.0)

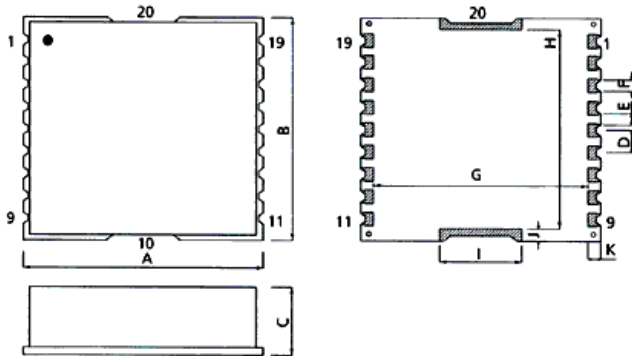


Dimension (mm)			
A	29.0	G	26.0
B	30.0	H	27.0
C	8.0	I	9.8
D	3.0	J	1.5
E	1.1	K	1.5
F	0.9	tolerance : ± 0.2	

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			

Mechanical dimensions & Pin configurations

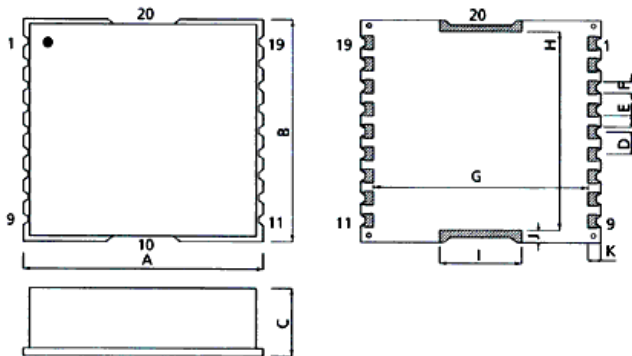
■ PD4-package (29.0 x 30.0 x 8.0)



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 GND	

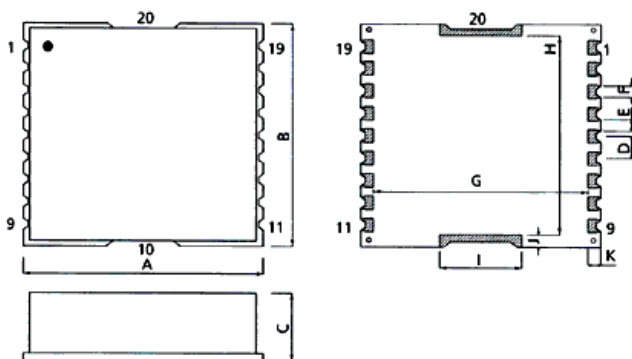
■ PD5-package (29.0 x 30.0 x 8.0)



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 GND	
15	RF Out		

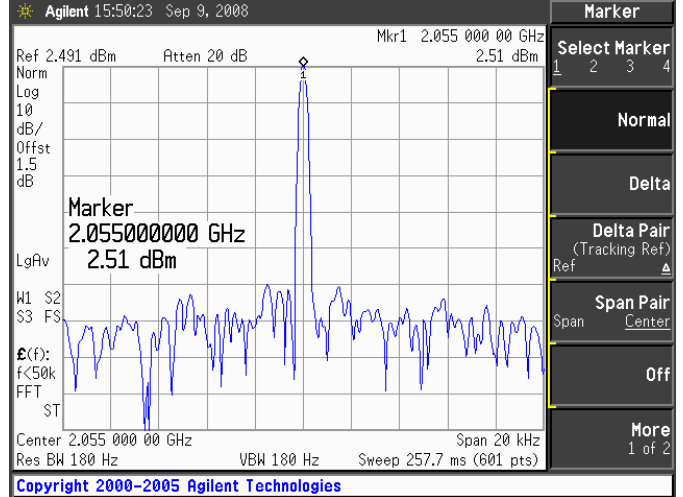
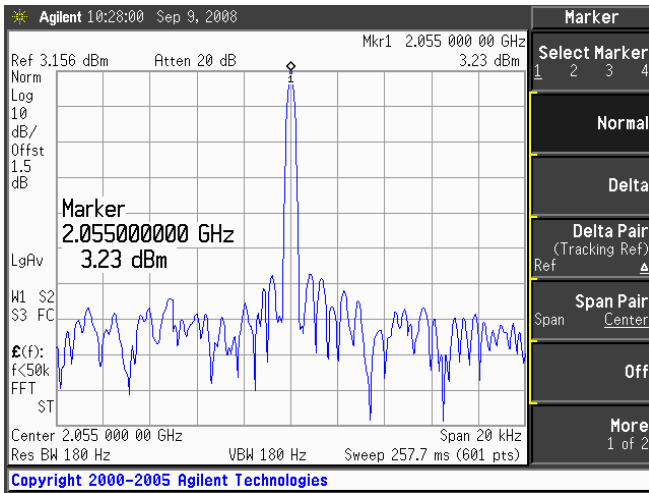
■ PD7-package (29.0 x 30.0 x 8.0)



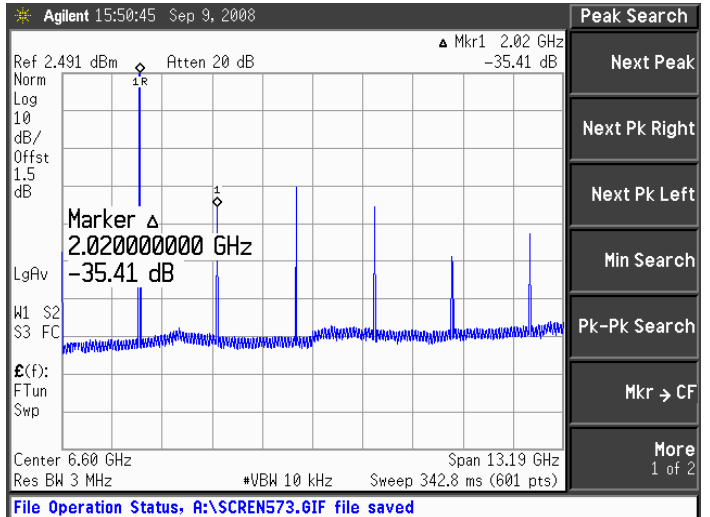
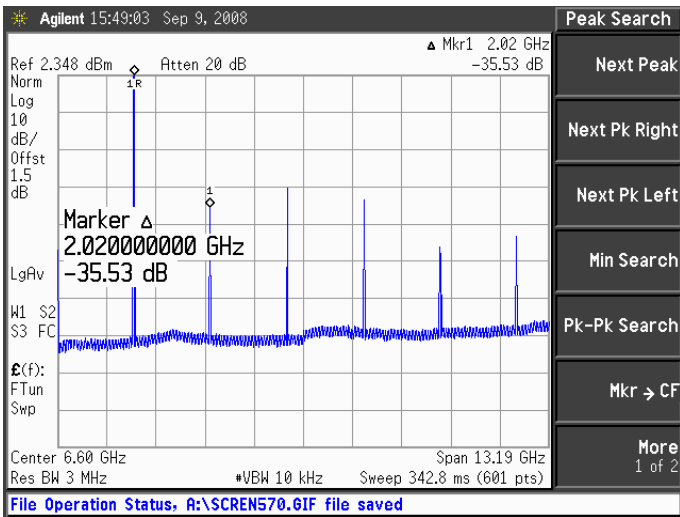
Dimension (mm)			
A	29.0	G	26.0
B	30.0	H	27.0
C	8.0	I	9.8
D	3.0	J	1.5
E	1.1	K	1.5
F	1.9	tolerance : ± 0.2	

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 GND	
5	Osc. In		

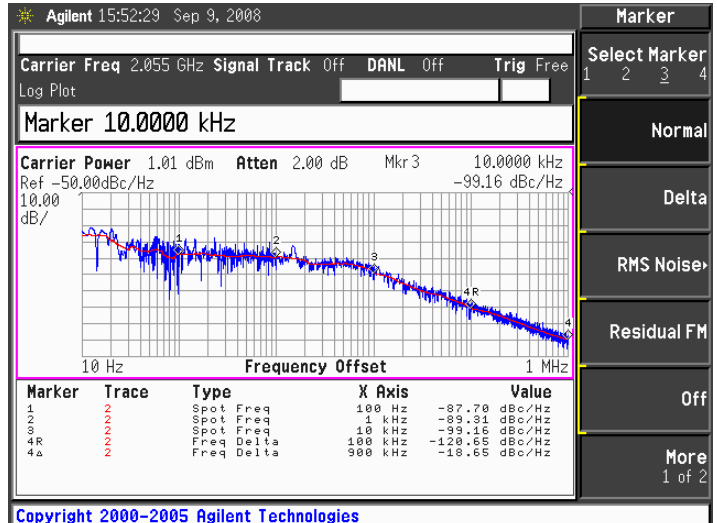
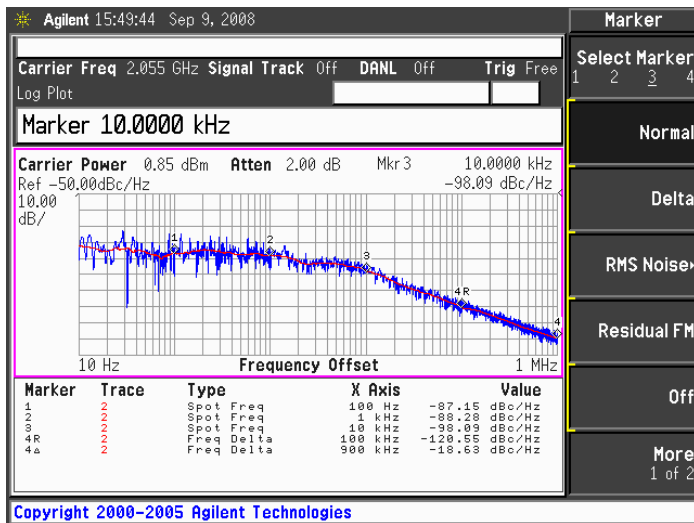
Performance



SPAN 20kHz



Harmonic



Phase Noise