Non-Catalog Model

Frequency Mixer JMS-5+

Level 7 (LO Power +7 dBm)

Important Note

This is a non-catalog model and can be manufactured on specific request.
Pricing and delivery information can be supplied upon request.

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CASE STYLE : BH292

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency	**LO** (fL to fU)	5		1500	MHz
	RF (fL to fU)	5		1500	MHz
	IF	0		1000	MHz
Conversion Loss	**mid band**		6.0	8.0	dB
	Total Range			9.5	dB
LO-RF Isolation	**Low Range**	40	63		dB
	Mid Range	25	50		dB
	Upper Range	20	35		dB
LO-IF Isolation	**Low Range**	40	60		dB
	Mid Range	18	30		dB
	Upper Range	8	15		dB
1 dB Comp. Input Power			+1		dBm

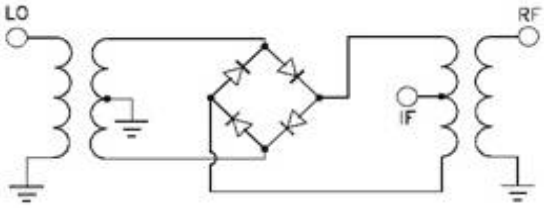
Notes: Low Range = [fL to 10fL] Mid Range = [10fL to fU/2] Upper Range = [fU/2 to fU]
mid band = [2fL to fU/2]

Phase detection, positive polarity
Non-hermetic

MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

PIN CONNECTIONS	
LO	6
RF	3
IF	2
GROUND	1, 4, 5

Electrical Schematics



Frequency Mixer JMS-5+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB) @LO (dBm)		
		+4	+7	+10
10.1	40.1	5.82	5.57	5.33
49.9	79.9	6.05	5.68	5.48
89.7	119.7	5.96	5.60	5.44
129.5	159.5	6.02	5.68	5.49
169.3	199.3	6.03	5.74	5.58
209.2	239.2	6.09	5.76	5.58
249.0	279.0	6.13	5.80	5.61
288.8	318.8	6.20	5.88	5.65
328.6	358.6	6.27	5.90	5.69
368.4	398.4	6.36	5.98	5.72
408.2	438.2	6.40	5.99	5.74
448.0	478.0	6.44	6.07	5.80
487.8	517.8	6.51	6.08	5.82
527.6	557.6	6.51	6.08	5.82
567.4	597.4	6.58	6.09	5.80
607.2	637.2	6.77	6.22	5.90
647.1	677.1	6.88	6.35	6.01
686.9	716.9	7.06	6.48	6.12
726.7	756.7	7.14	6.55	6.16
766.5	796.5	7.34	6.71	6.31
806.3	836.3	7.46	6.89	6.45
846.1	876.1	7.67	7.09	6.69
885.9	915.9	7.70	7.21	6.83
965.5	995.5	7.67	7.32	7.05
1005.3	1035.3	7.64	7.32	7.08
1045.2	1075.2	7.66	7.35	7.11
1085.0	1115.0	7.72	7.37	7.15
1124.8	1154.8	7.74	7.43	7.18
1164.6	1194.6	7.80	7.48	7.25
1204.4	1234.4	7.83	7.47	7.27
1244.2	1274.2	7.96	7.60	7.37
1284.0	1314.0	8.01	7.59	7.42
1323.8	1353.8	8.12	7.69	7.47
1363.6	1393.6	8.21	7.72	7.52
1403.4	1433.4	8.24	7.79	7.57
1443.2	1473.2	8.34	7.88	7.65
1483.1	1513.1	8.56	7.95	7.78
1522.9	1552.9	8.74	8.11	7.81
1562.7	1592.7	8.92	8.24	7.92
1602.5	1632.5	9.21	8.40	8.02

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm) @LO (dBm)		
		+4	+7	+10
10.1	40.1	15.21	16.42	19.75
49.9	79.9	18.64	15.40	15.58
89.7	119.7	13.60	12.86	14.82
129.5	159.5	11.05	13.99	17.12
169.3	199.3	11.37	13.20	17.26
209.2	239.2	11.90	15.44	19.74
249.0	279.0	12.35	16.31	21.90
288.8	318.8	12.85	17.26	23.25
328.6	358.6	14.54	19.83	20.30
368.4	398.4	15.79	17.24	17.46
408.2	438.2	16.05	18.92	17.58
448.0	478.0	15.72	18.08	16.31
487.8	517.8	16.55	16.09	14.89
527.6	557.6	15.08	14.33	14.88
567.4	597.4	14.61	14.37	14.72
607.2	637.2	13.75	13.95	14.15
647.1	677.1	11.54	13.04	13.48
686.9	716.9	10.32	12.03	12.68
726.7	756.7	9.64	11.26	12.77
766.5	796.5	8.81	10.96	11.44
806.3	836.3	8.58	10.42	11.74
846.1	876.1	7.85	9.83	11.30
885.9	915.9	7.99	9.10	10.84
965.5	995.5	8.12	9.11	10.04
1005.3	1035.3	9.02	9.36	10.18
1045.2	1075.2	9.81	9.75	10.45
1085.0	1115.0	10.51	10.21	10.67
1124.8	1154.8	10.95	11.11	11.07
1164.6	1194.6	12.61	11.85	11.48
1204.4	1234.4	13.05	14.22	12.53
1244.2	1274.2	13.02	14.21	14.82
1284.0	1314.0	12.17	13.56	14.96
1323.8	1353.8	12.56	14.46	15.21
1363.6	1393.6	11.98	13.73	15.15
1403.4	1433.4	12.47	14.51	16.03
1443.2	1473.2	12.13	14.46	17.47
1483.1	1513.1	13.01	15.34	16.05
1522.9	1552.9	12.17	13.48	15.85
1562.7	1592.7	12.31	14.86	17.00
1602.5	1632.5	12.94	14.39	16.70

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+1dBm (dB) @LO (dBm)		
		+4	+7	+10
10.1	40.1	1.14	0.89	0.74
49.9	79.9	1.41	1.15	0.93
89.7	119.7	1.55	1.22	0.99
129.5	159.5	1.60	1.31	1.02
169.3	199.3	1.53	1.31	1.06
209.2	239.2	1.62	1.29	0.99
249.0	279.0	1.68	1.29	1.12
288.8	318.8	1.70	1.44	1.14
328.6	358.6	1.79	1.47	1.33
368.4	398.4	1.82	1.56	1.32
408.2	438.2	1.86	1.65	1.48
448.0	478.0	2.06	1.70	1.58
487.8	517.8	2.05	1.82	1.62
527.6	557.6	2.01	1.83	1.55
567.4	597.4	2.11	1.81	1.60
607.2	637.2	2.10	1.78	1.57
647.1	677.1	2.32	2.03	1.83
686.9	716.9	2.04	1.92	1.61
726.7	756.7	2.10	1.91	1.75
766.5	796.5	1.96	1.82	1.56
806.3	836.3	1.76	1.69	1.53
846.1	876.1	1.61	1.66	1.50
885.9	915.9	1.44	1.36	1.20
965.5	995.5	1.40	1.12	0.92
1005.3	1035.3	1.34	1.13	1.02
1045.2	1075.2	1.07	0.92	0.77
1085.0	1115.0	1.08	0.77	0.64
1124.8	1154.8	1.01	0.77	0.68
1164.6	1194.6	1.02	0.65	0.70
1204.4	1234.4	0.93	0.73	0.56
1244.2	1274.2	0.98	0.80	0.66
1284.0	1314.0	0.96	0.77	0.55
1323.8	1353.8	1.05	0.70	0.56
1363.6	1393.6	1.00	0.69	0.52
1403.4	1433.4	1.01	0.63	0.50
1443.2	1473.2	0.86	0.66	0.57
1483.1	1513.1	0.97	0.72	0.56
1522.9	1552.9	0.81	0.61	0.41
1562.7	1592.7	0.97	0.61	0.34
1602.5	1632.5	0.92	0.59	0.40

Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=750.1MHz (dB)
		@LO (dBm)
		+7
10.1	740.0	6.83
28.8	721.3	6.85
47.5	702.6	6.85
66.3	683.9	6.89
85.0	665.1	6.89
103.7	646.4	6.89
122.4	627.7	6.90
141.1	609.0	6.85
159.8	590.3	6.85
178.6	571.5	6.80
197.3	552.8	6.78
216.0	534.1	6.75
234.7	515.4	6.72
253.4	496.7	6.70
272.2	478.0	6.66
290.9	459.2	6.68
309.6	440.5	6.69
328.3	421.8	6.65
347.0	403.1	6.62
365.7	384.4	6.58
384.5	365.6	6.49
403.2	346.9	6.54
421.9	328.2	6.52
440.6	309.5	6.50
459.3	290.8	6.46
478.1	272.1	6.47
496.8	253.3	6.46
515.5	234.6	6.42
534.2	215.9	6.42
552.9	197.2	6.41
571.6	178.5	6.46
590.4	159.7	6.50
609.1	141.0	6.50
627.8	122.3	6.54
646.5	103.6	6.53
665.2	84.9	6.61
684.0	66.2	6.60
702.7	47.4	6.59
721.4	28.7	6.58
740.1	10.0	6.59

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=10.1MHz (dB)
		@LO (dBm)
		+7
20.1	10.0	6.01
60.5	50.4	5.66
100.9	90.8	5.67
141.3	131.2	5.63
181.7	171.6	5.68
222.1	212.0	5.72
242.3	232.2	5.77
262.6	252.5	5.79
282.8	272.7	5.77
303.0	292.9	5.84
323.2	313.1	5.85
343.4	333.3	5.88
363.6	353.5	5.89
383.8	373.7	5.91
404.0	393.9	5.94
424.2	414.1	5.95
444.4	434.3	5.99
464.6	454.5	6.03
484.8	474.7	6.02
505.0	494.9	6.01
525.2	515.1	6.05
545.4	535.3	6.11
565.6	555.5	6.12
585.8	575.7	6.21
606.0	595.9	6.22
626.2	616.1	6.28
646.4	636.3	6.35
666.6	656.5	6.41
686.8	676.7	6.48
707.0	696.9	6.54
727.2	717.1	6.59
747.5	737.4	6.65
767.7	757.6	6.76
787.9	777.8	6.83
808.1	798.0	6.91
848.5	838.4	7.10
888.9	878.8	7.28
929.3	919.2	7.48
969.7	959.6	7.72
1010.1	1000.0	7.93

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1500.1MHz (dB)
		@LO (dBm)
		+7
500.1	1000.0	10.00
540.5	959.6	9.75
580.9	919.2	9.51
621.3	878.8	9.29
661.7	838.4	9.07
702.1	798.0	8.92
722.3	777.8	8.86
742.6	757.6	8.82
762.8	737.4	8.57
783.0	717.1	8.51
803.2	696.9	8.52
823.4	676.7	8.46
843.6	656.5	8.43
863.8	636.3	8.39
884.0	616.1	8.36
904.2	595.9	8.36
924.4	575.7	8.31
944.6	555.5	8.29
964.8	535.3	8.28
985.0	515.1	8.27
1005.2	494.9	8.22
1025.4	474.7	8.21
1045.6	454.5	8.25
1065.8	434.3	8.25
1086.0	414.1	8.30
1106.2	393.9	8.26
1126.4	373.7	8.31
1146.6	353.5	8.26
1166.8	333.3	8.33
1187.0	313.1	8.31
1207.2	292.9	8.31
1227.5	272.7	8.30
1247.7	252.5	8.25
1267.9	232.2	8.28
1288.1	212.0	8.20
1328.5	171.6	8.13
1368.9	131.2	8.07
1409.3	90.8	8.02
1449.7	50.4	8.03
1490.1	10.0	8.32

Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB) @LO (dBm)			LO-IF ISOLATION (dB) @LO (dBm)		
	+4	+7	+10	+4	+7	+10
40.1	63.33	61.66	69.58	48.53	63.12	70.31
79.9	65.31	63.27	61.33	53.74	71.59	56.20
119.7	62.95	63.61	59.92	48.81	69.88	51.27
159.5	59.58	63.08	58.63	44.79	59.58	48.10
199.3	56.82	63.16	58.03	42.70	54.14	45.05
239.2	54.76	63.77	57.74	40.82	50.61	42.78
279.0	53.21	63.82	56.96	39.85	47.51	40.08
318.8	51.93	65.53	56.30	39.35	45.04	38.01
358.6	50.40	65.34	56.19	39.03	42.46	35.95
398.4	49.60	67.14	55.14	39.34	39.53	33.81
438.2	48.27	62.58	54.78	39.41	38.22	32.67
478.0	47.35	59.71	53.95	39.79	35.74	30.79
517.8	46.12	56.45	53.07	40.00	34.45	29.80
557.6	44.92	54.51	53.04	39.55	32.55	28.26
597.4	44.30	52.87	51.74	38.47	30.89	26.94
637.2	43.85	51.26	49.67	36.78	29.42	25.79
677.1	43.69	49.99	47.45	34.49	27.98	24.75
716.9	43.19	49.01	46.35	32.79	26.90	23.95
756.7	42.83	48.75	45.64	30.43	25.37	22.75
796.5	42.14	49.31	46.64	28.54	24.15	21.81
836.3	41.18	49.40	47.74	26.76	22.84	20.73
876.1	40.38	49.52	50.17	25.02	21.58	19.69
915.9	38.86	46.56	56.46	23.84	20.67	18.89
995.5	36.69	41.60	50.14	21.62	18.97	17.34
1035.3	35.77	39.90	45.76	20.79	18.31	16.74
1075.2	35.10	38.81	43.48	20.08	17.77	16.27
1115.0	34.39	37.73	41.60	19.37	17.19	15.74
1154.8	34.04	37.23	40.73	18.60	16.61	15.26
1194.6	33.57	36.60	39.85	17.96	16.08	14.82
1234.4	33.06	35.97	39.02	17.30	15.52	14.32
1274.2	32.68	35.48	38.38	16.63	14.97	13.85
1314.0	32.13	34.79	37.53	16.13	14.57	13.50
1353.8	31.50	34.00	36.53	15.57	14.11	13.09
1393.6	30.94	33.31	35.72	15.12	13.77	12.80
1433.4	30.32	32.58	34.85	14.65	13.43	12.51
1473.2	29.69	31.77	33.87	14.18	13.08	12.23
1513.1	29.07	31.01	33.00	13.71	12.72	11.93
1552.9	28.44	30.28	32.19	13.29	12.43	11.69
1592.7	27.69	29.38	31.17	12.90	12.13	11.43
1632.5	27.13	28.67	30.35	12.57	11.87	11.22

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB) @LO (dBm)		
		+4	+7	+10
10.1	40.1	37.76	34.83	46.50
49.9	79.9	41.77	39.49	40.61
89.7	119.7	38.03	36.02	35.83
129.5	159.5	34.91	33.98	33.81
169.3	199.3	33.71	32.91	32.45
209.2	239.2	32.60	31.82	31.60
249.0	279.0	31.98	31.37	30.95
288.8	318.8	31.73	30.99	30.45
328.6	358.6	31.26	30.67	30.14
368.4	398.4	30.31	29.97	29.58
408.2	438.2	29.13	28.88	28.57
448.0	478.0	27.73	27.41	27.22
487.8	517.8	26.04	25.89	25.73
527.6	557.6	24.52	24.39	24.28
567.4	597.4	23.16	23.04	22.99
607.2	637.2	21.90	21.89	21.85
647.1	677.1	20.84	20.83	20.87
686.9	716.9	20.04	20.05	20.17
726.7	756.7	19.55	19.64	19.74
766.5	796.5	19.34	19.43	19.57
806.3	836.3	19.25	19.42	19.59
846.1	876.1	19.36	19.54	19.73
885.9	915.9	19.42	19.73	19.98
965.5	995.5	19.71	20.12	20.49
1005.3	1035.3	19.78	20.22	20.65
1045.2	1075.2	19.76	20.22	20.65
1085.0	1115.0	19.63	20.09	20.50
1124.8	1154.8	19.44	19.84	20.17
1164.6	1194.6	19.23	19.56	19.86
1204.4	1234.4	19.07	19.33	19.54
1244.2	1274.2	18.90	19.08	19.22
1284.0	1314.0	18.79	18.92	19.02
1323.8	1353.8	18.66	18.75	18.81
1363.6	1393.6	18.51	18.57	18.63
1403.4	1433.4	18.29	18.35	18.42
1443.2	1473.2	17.94	18.05	18.13
1483.1	1513.1	17.50	17.62	17.73
1522.9	1552.9	16.96	17.12	17.25
1562.7	1592.7	16.36	16.51	16.70
1602.5	1632.5	15.77	15.95	16.12

Typical Performance Data

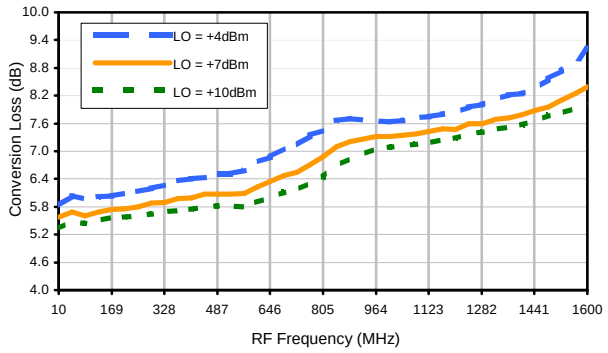
RF (IN) (MHz)	LO (MHz)	RF VSWR (:1) @LO (dBm)		
		+4	+7	+10
10.1	40.1	1.46	1.47	1.51
49.9	79.9	1.22	1.19	1.23
89.7	119.7	1.16	1.06	1.02
129.5	159.5	1.11	1.02	1.03
169.3	199.3	1.19	1.11	1.07
209.2	239.2	1.15	1.08	1.06
249.0	279.0	1.22	1.16	1.13
288.8	318.8	1.24	1.19	1.16
328.6	358.6	1.32	1.27	1.24
368.4	398.4	1.37	1.31	1.28
408.2	438.2	1.45	1.39	1.36
448.0	478.0	1.53	1.47	1.43
487.8	517.8	1.64	1.58	1.53
527.6	557.6	1.70	1.63	1.58
567.4	597.4	1.84	1.76	1.70
607.2	637.2	1.94	1.84	1.77
647.1	677.1	2.11	2.01	1.93
686.9	716.9	2.23	2.11	2.02
726.7	756.7	2.45	2.33	2.23
766.5	796.5	2.63	2.49	2.38
806.3	836.3	2.81	2.68	2.57
846.1	876.1	2.97	2.86	2.77
885.9	915.9	2.96	2.90	2.84
965.5	995.5	2.86	2.84	2.82
1005.3	1035.3	2.93	2.90	2.88
1045.2	1075.2	2.83	2.79	2.77
1085	1115	2.96	2.91	2.88
1124.8	1154.8	2.91	2.84	2.79
1164.6	1194.6	3.04	2.95	2.89
1204.4	1234.4	2.98	2.88	2.80
1244.2	1274.2	3.06	2.93	2.84
1284	1314	2.99	2.85	2.75
1323.8	1353.8	3.01	2.86	2.75
1363.6	1393.6	2.91	2.75	2.65
1403.4	1433.4	2.89	2.73	2.62
1443.2	1473.2	2.84	2.67	2.56
1483.1	1513.1	2.92	2.73	2.61
1522.9	1552.9	2.92	2.72	2.60
1562.7	1592.7	3.04	2.82	2.69
1602.5	1632.5	3.10	2.86	2.72

LO (MHz)	LO VSWR (:1) @LO (dBm)		
	+4	+7	+10
40.1	1.77	2.49	3.34
79.9	1.89	2.73	3.82
119.7	1.86	2.68	3.72
159.5	1.83	2.63	3.62
199.3	1.86	2.64	3.62
239.2	1.83	2.57	3.49
279.0	1.88	2.62	3.55
318.8	1.89	2.62	3.52
358.6	1.90	2.64	3.52
398.4	1.97	2.71	3.58
438.2	1.95	2.65	3.47
478.0	2.00	2.69	3.50
517.8	1.99	2.63	3.38
557.6	2.00	2.63	3.37
597.4	2.04	2.65	3.35
637.2	2.07	2.66	3.34
677.1	2.12	2.71	3.37
716.9	2.12	2.66	3.29
756.7	2.14	2.67	3.27
796.5	2.16	2.65	3.20
836.3	2.18	2.65	3.17
876.1	2.24	2.70	3.21
915.9	2.25	2.69	3.17
995.5	2.33	2.75	3.20
1035.3	2.33	2.72	3.16
1075.2	2.36	2.74	3.17
1115	2.35	2.69	3.09
1154.8	2.39	2.72	3.11
1194.6	2.41	2.71	3.08
1234.4	2.42	2.70	3.05
1274.2	2.46	2.73	3.07
1314	2.46	2.69	3.01
1353.8	2.51	2.72	3.03
1393.6	2.56	2.73	3.02
1433.4	2.60	2.75	3.02
1473.2	2.70	2.82	3.07
1513.1	2.75	2.84	3.06
1552.9	2.88	2.93	3.14
1592.7	3.00	3.01	3.19
1632.5	3.11	3.08	3.22

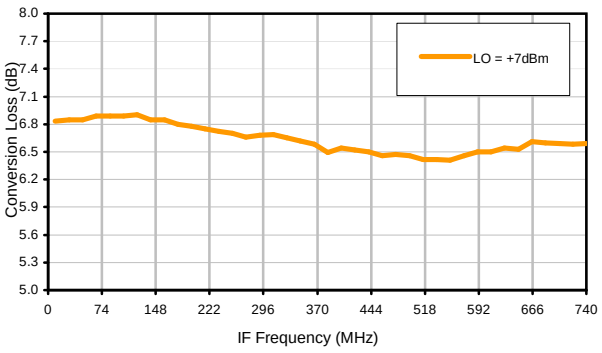
IF (OUT) (MHz)	IF VSWR @LO=500.1MHz (:1) @LO (dBm)		
	+4	+7	+10
10.1	1.13	1.23	1.40
30.3	1.13	1.22	1.30
50.5	1.08	1.24	1.42
70.7	1.06	1.25	1.41
90.9	1.04	1.22	1.40
111.1	1.08	1.19	1.33
131.3	1.13	1.21	1.35
151.5	1.12	1.25	1.40
171.7	1.12	1.24	1.41
191.9	1.14	1.25	1.39
212.1	1.16	1.26	1.41
232.3	1.20	1.31	1.44
252.6	1.21	1.32	1.47
272.8	1.20	1.32	1.47
293.0	1.23	1.34	1.48
313.2	1.24	1.36	1.50
333.4	1.26	1.39	1.53
353.6	1.26	1.40	1.55
373.8	1.25	1.39	1.54
394.0	1.26	1.39	1.54
414.2	1.28	1.41	1.55
434.4	1.27	1.41	1.57
454.6	1.28	1.43	1.57
495.0	1.30	1.44	1.58
515.2	1.32	1.45	1.60
535.4	1.31	1.46	1.61
555.6	1.32	1.46	1.61
575.8	1.32	1.47	1.62
596.0	1.34	1.49	1.64
616.2	1.35	1.51	1.66
636.4	1.34	1.50	1.65
676.8	1.35	1.50	1.65
717.2	1.39	1.55	1.71
757.7	1.38	1.55	1.70
798.1	1.44	1.62	1.77
838.5	1.46	1.64	1.80
878.9	1.49	1.67	1.83
919.3	1.55	1.74	1.90
959.7	1.56	1.75	1.91
1000.1	1.66	1.85	2.01

Typical Performance Curves

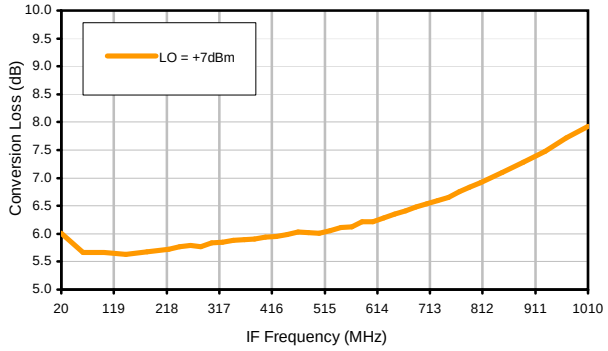
Conversion Loss @ IF=30MHz



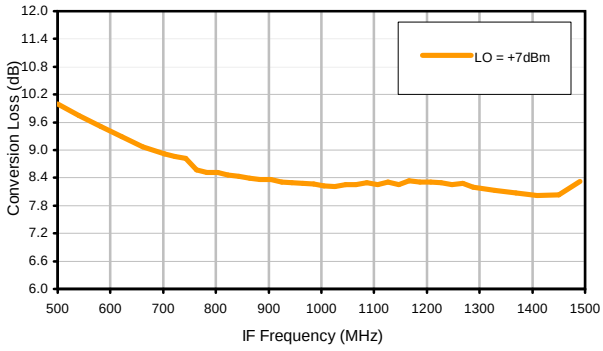
Conversion Loss vs. IF @ RF=750.1MHz



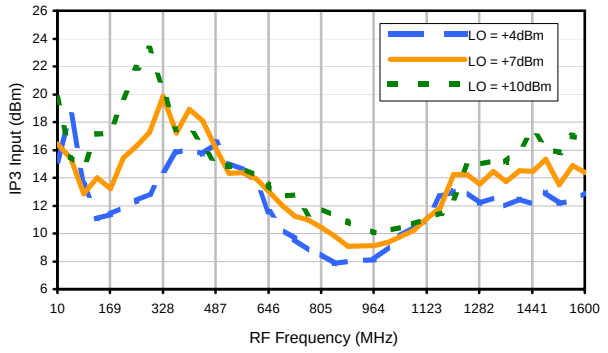
Conversion Loss vs. IF @ RF=10.1MHz



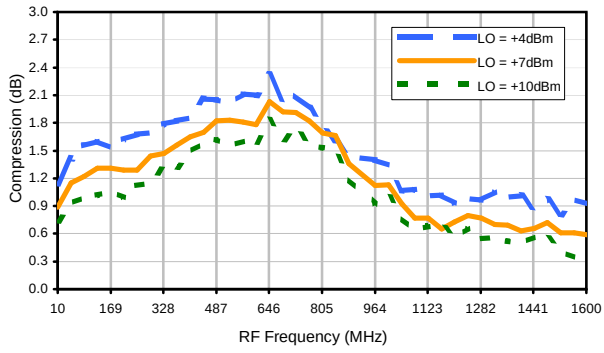
Conversion Loss vs. IF @ RF=1500.1MHz



IP3 Input

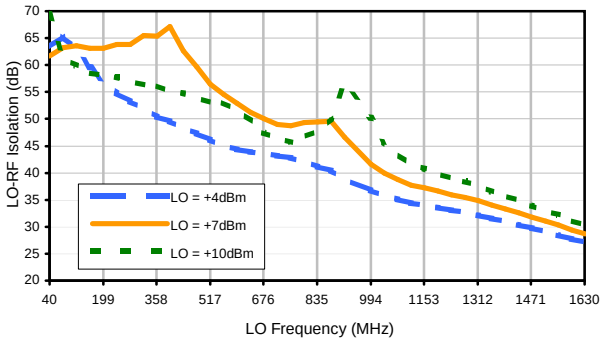


Compression @ RF IN=+1dBm

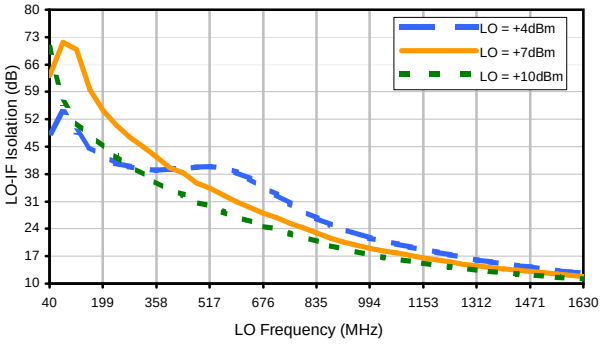


Typical Performance Curves

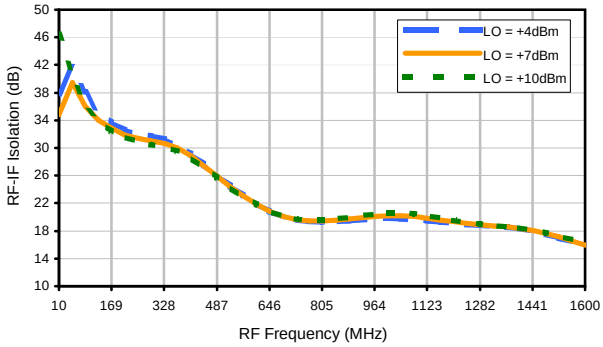
LO-RF Isolation



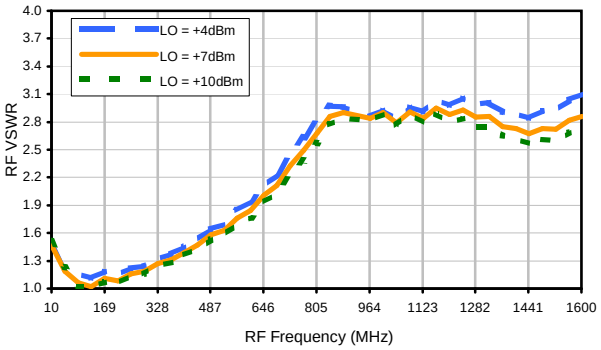
LO-IF Isolation



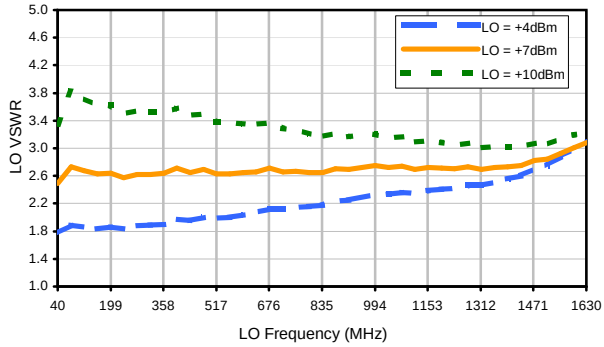
RF-IF Isolation



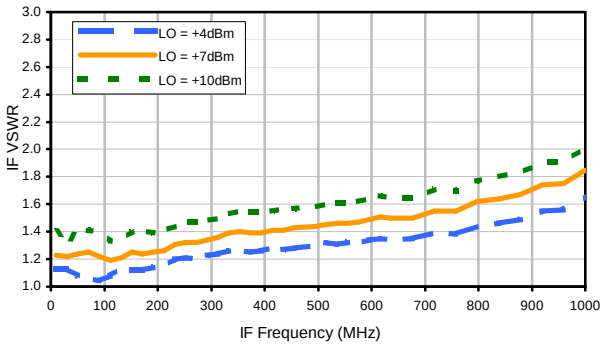
RF VSWR



LO VSWR



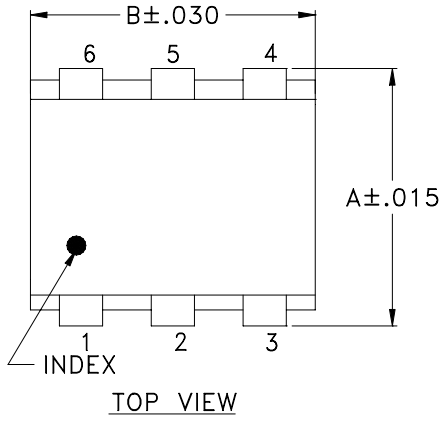
IF VSWR



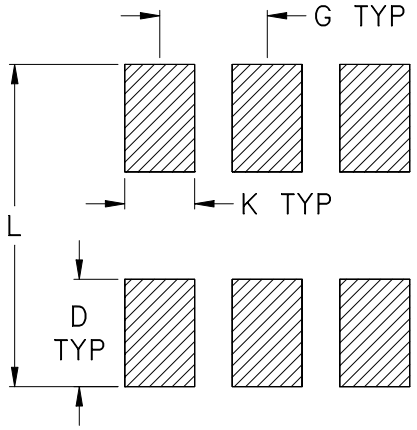
Case Style BH

BH292

Outline Dimensions



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

CASE #	A	B	C	D	E	F	G	H	J	K	L	WT. GRAM
BH292	.280 (7.11)	.310 (7.87)	- -	.100 (2.54)	.225 (5.72)	.055 (1.40)	.100 (2.54	.047 (1.19)	.065 (1.65)	.065 (1.65)	.300 (7.62)	.45

Dimensions are in inches (mm). Tolerances: 2Pl. ± .01; 3Pl. ± .005

Notes:
1. Case material: Ceramic.
2. Termination finish:
   For RoHS Case Styles: Tin plate over Nickel plate. All models, (+) suffix.
   For RoHS-5 Case Styles: Tin-Lead plate. All models, no (+) suffix.

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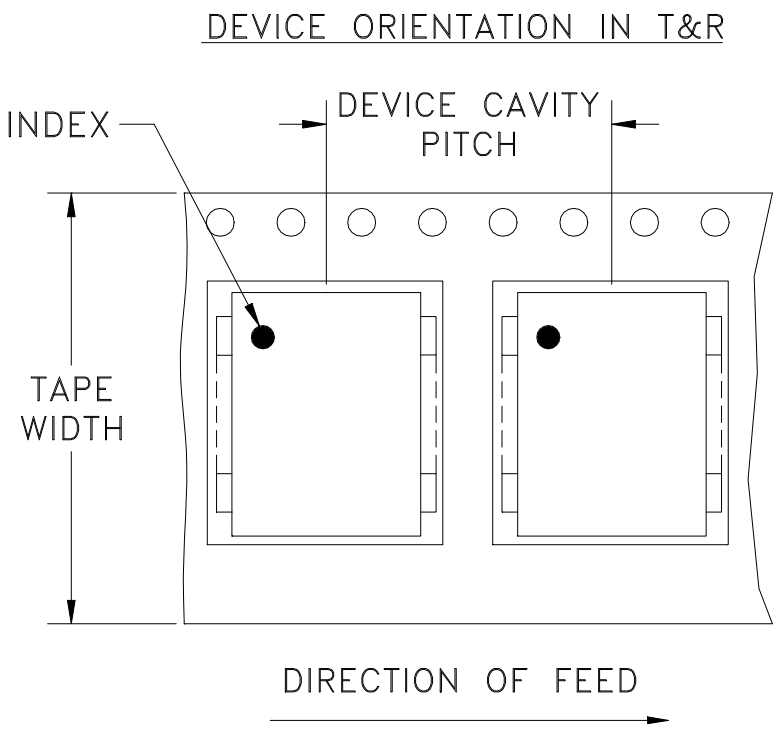

Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel
16	12	13	500

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

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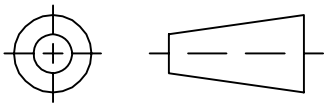
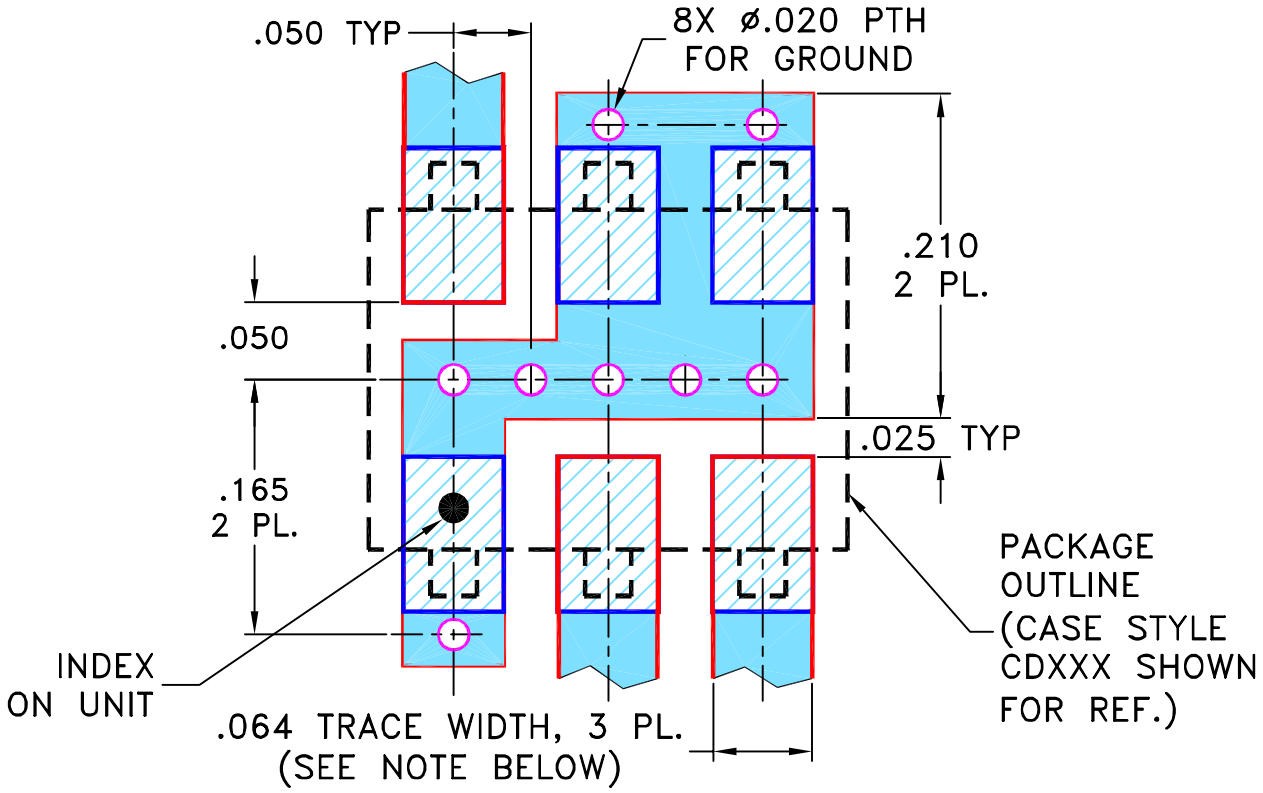
THIRD ANGLE PROJECTION



REVISIONS

REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
A	M101143	ADDED "gk" PIN CONNECTION,	10/10/05	MMG	DJ
		TT100 CASE STYLE & NOTE 2			
B	M102713	ADDED "...WITH SMOBC"	01/17/06	MMG	IL
C	M108637	REMOVED "PIN 1" , ADDED INDEX ON UNIT	12/01/06	MYG	FL

SUGGESTED MOUNTING CONFIGURATION FOR BH292, CD541/542/636/637, TT100/240 CASE STYLES, "gk", "ht", "hu", "nd", "w" PIN CONNECTIONS



NOTES:
1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

UNLESS OTHERWISE SPECIFIED		INITIALS	DATE
DIMENSIONS ARE IN INCHES	DRAWN	MMG	07/17/02
TOLERANCES ON:	CHECKED	WL	08/02/02
2 PL DECIMALS ±	APPROVED	DJ	08/05/02
3 PL DECIMALS ± .005			
ANGLES ±			
FRACTIONS ±			

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ASHEETA1.DWG REV:A DATE:01/12/95

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Brooklyn NY 11235

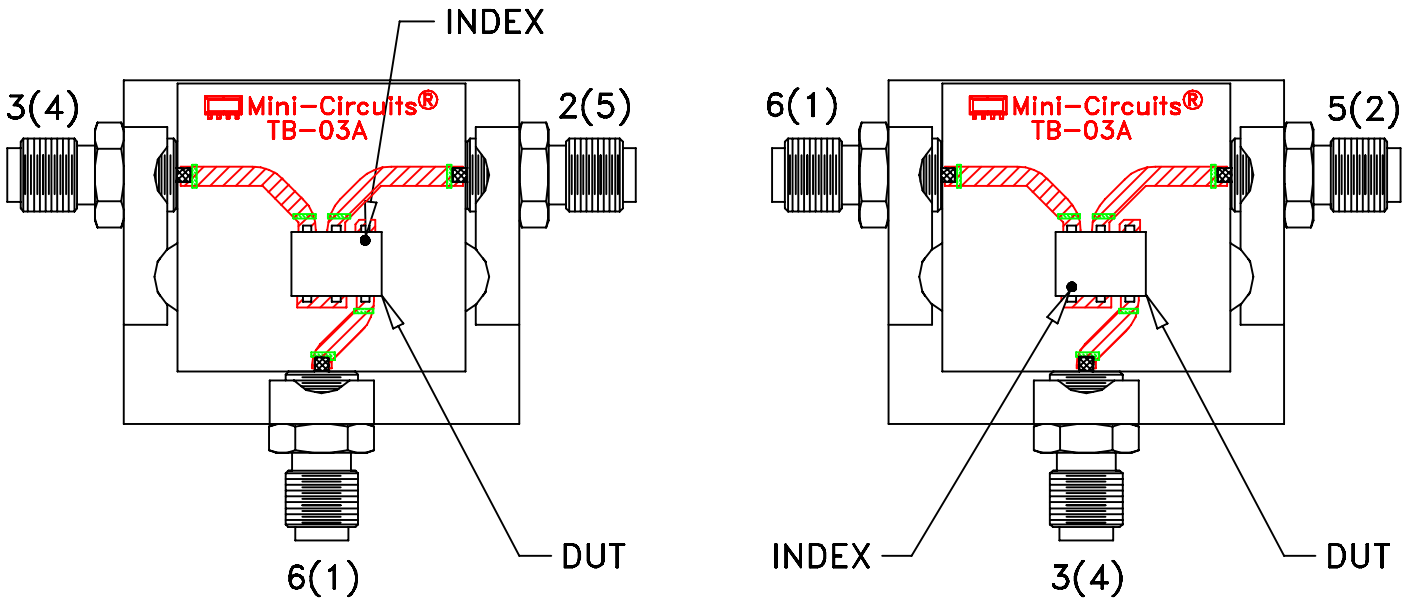
PL, gk/ht/hu/nd/w, BH292, CD541/542/636/637, TT100/240, TB-03

SIZE	CODE IDENT	DRAWING NO:	REV:
A	15542	98-PL-052	C

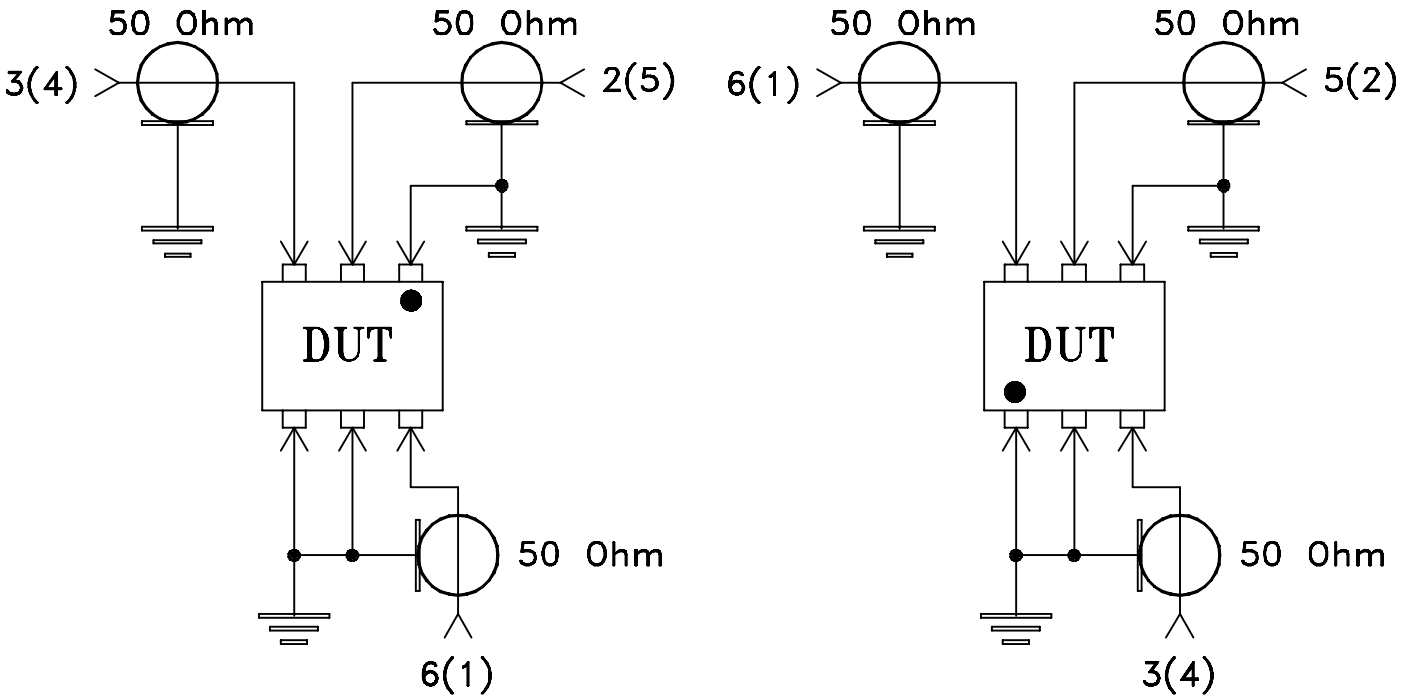
FILE:	SCALE:	SHEET:
98PL052	8:1	1 OF 1

Evaluation Board and Circuit

For Pin Connections and DUT Orientation Refer to Data Sheet of the DUT



TB-03



Schematic Diagram

Notes:

1. 50 Ohm SMA Female connectors.
2. PCB Material: Rogers RO4350 or equivalent, Dielectric Constant=3.5, Thickness=.030 inch.

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Environmental Specifications ENV02T1

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Humidity	90 to 95% RH, 240 hours, 50°C	MIL-STD-202, Method 103, Condition A, Except 50°C and end-point electrical test done within 12 hours
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Solder Reflow Heat	Sn-Pb Eutetic Process: 225°C peak Pb-Free Process 245° - 250°C peak	J-STD-020, Table 4-1, 4-2 and 5-2, Figure 5-1
Solderability	10X Magnification	J-STD-002, 95% Coverage
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215