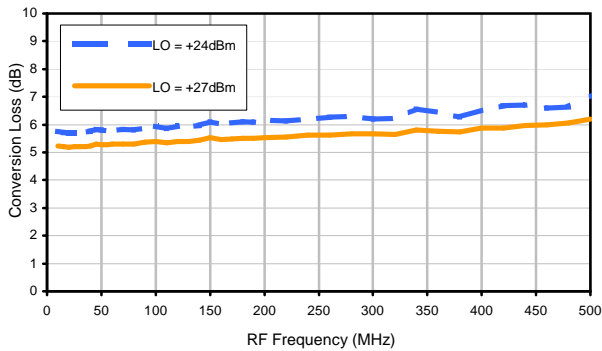


# Frequency Mixer

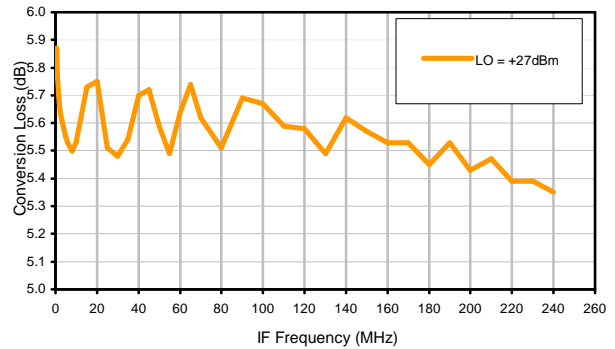
# VAY-1+

## Typical Performance Curves

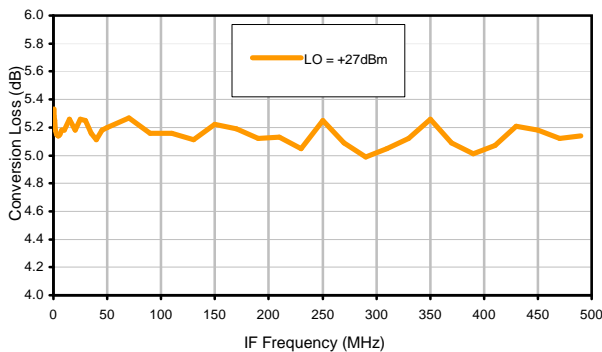
### Conversion Loss @ IF=30MHz



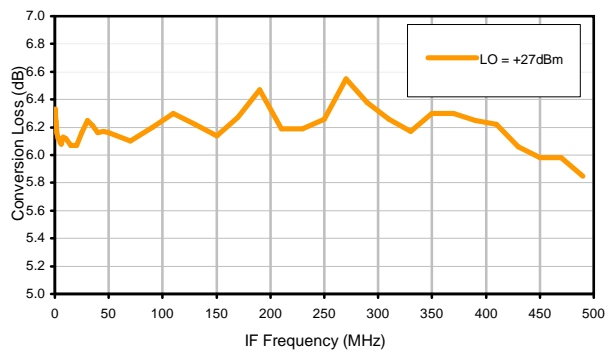
### Conversion Loss vs. IF @ RF=250.1MHz



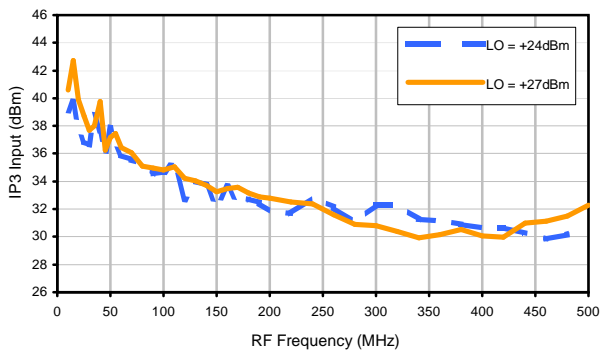
### Conversion Loss vs. IF @ RF=10.1MHz



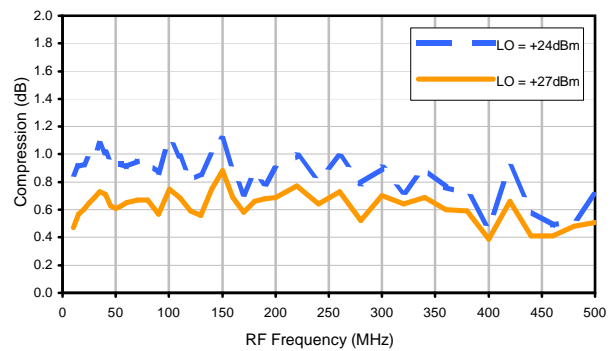
### Conversion Loss vs. IF @ RF=500.1MHz



### IP3 Input



### Compression @ RF IN=+24dBm



REV. X2  
VAY-1+  
100818  
Page 1 of 3



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED • RoHS compliant  
P.O. Box 350166, Brooklyn, New York 11235-0006 (718) 934-4500 Fax (718) 332-4661

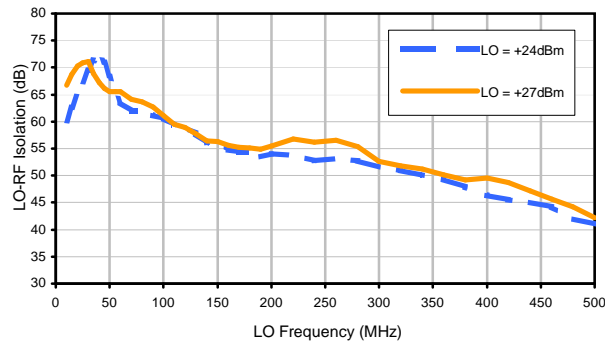


The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see

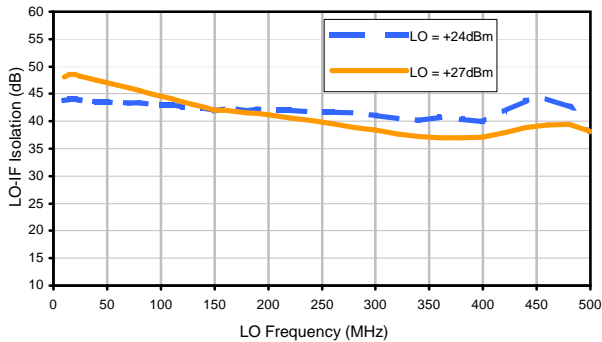


## Typical Performance Curves

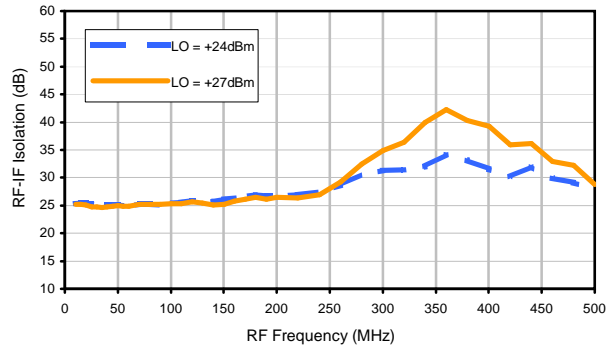
LO-RF Isolation



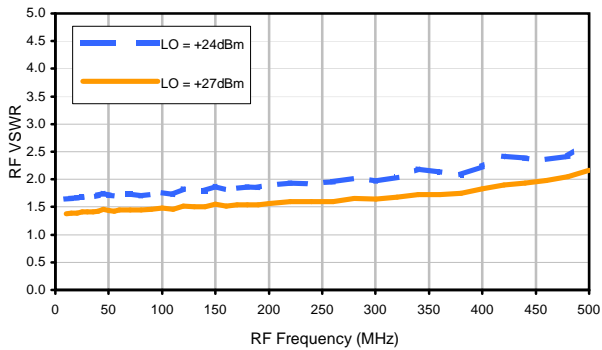
LO-IF Isolation



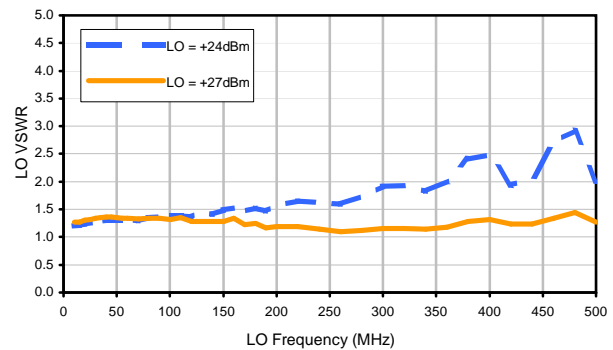
RF-IF Isolation



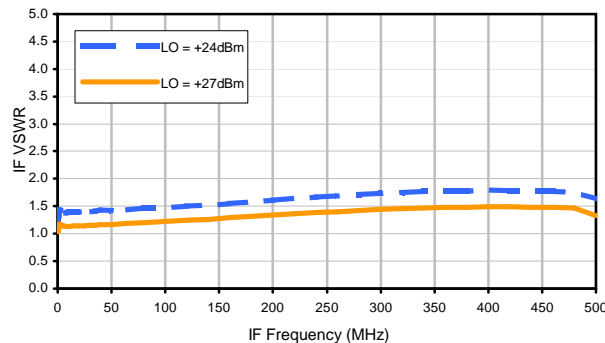
RF VSWR



LO VSWR



IF VSWR



## Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	25	40	26	52	37	55	56	56	61	63
1	-	35	+0	46	13	42	29	41	38	46	36	59
2	74	59	51	65	51	64	52	57	61	78	50	72
3	91	57	39	54	39	59	52	59	40	51	42	52
4	109	70	59	82	65	72	63	80	61	71	69	77
5	>119	63	49	66	50	62	48	61	50	59	49	60
6	>119	78	64	84	60	75	64	72	64	75	63	81
7	>118	89	65	74	65	72	73	74	65	66	68	63
8	>120	80	78	81	72	79	67	77	69	78	69	78
9	>120	84	74	80	77	71	89	71	72	74	68	75
10	>119	86	82	103	81	94	75	86	74	86	76	86
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

### LO HARMONICS ORDER

Test conditions: RF IN: 250.1 MHz; 19.05.00 dBm.  
 LO IN: 280.01 MHz; +26.9.00 dBm  
 IF OUT: 29.91 MHz; 13.56 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	14	30	15	36	25	52	35	51	34	43
1	-	32	+0	46	13	39	27	34	26	36	25	46
2	88	66	49	61	50	65	48	65	57	60	51	58
3	102	56	53	55	52	57	51	59	49	64	50	63
4	>121	74	60	86	63	80	65	71	74	76	72	78
5	>122	74	70	65	65	68	66	67	63	66	74	75
6	>122	90	83	84	77	87	86	84	83	76	77	84
7	>121	85	81	79	76	75	78	78	80	75	88	76
8	>121	96	95	97	91	89	92	89	92	89	88	86
9	>122	94	97	94	95	87	89	85	89	87	93	86
10	>120	105	101	104	107	107	102	94	101	96	98	97
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

### LO HARMONICS ORDER

Test conditions: RF IN: 250.1 MHz; 9.00 dBm.  
 LO IN: 280.01 MHz; +26.9.00 dBm  
 IF OUT: 29.91 MHz; 3.39 dBm

- Notes: 1. All Harmonics are in (dBc) relative to IF OUTPUT.  
 2. + entry denotes harmonics are in (dBc) above IF OUTPUT.  
 3. RF Cal represent the Harmonics level of the RF input signal to the mixer.

REV. X2  
 VAY-1+  
 100818

Page 3 of 3



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED • RoHS compliant  
 P.O. Box 350166, Brooklyn, New York 11235-0006 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see

