

## TWO-TONE-TERMINATOR MIXER/LO-AMPLIFIER

## T3A-8

The T3A-8 is a broadband Two-Tone-Terminator mixer integrated with a single positive-bias only LO buffer amplifier. Easy-to-use and cost effective for your commercial mixer needs.



### Features

- High Two-Tone Intercept for low LO Drive
- Integrated LO Buffer Amplifier
- LO/RF 10 to 8000 MHz
- IF 1 to 4000 MHz
- 7.0 dB Typical Conversion Loss
- Ultra-Broadband RF, LO, and IF
- *Positive-Bias Only Required*

**Electrical Specifications** - Specifications guaranteed from -30 to +70°C, measured in a 50Ω system.

Parameter	LO (MHz)	RF (MHz)	IF (MHz)	Min	Typ	Max
Conversion Loss (dB)	10-8000 10-8000	10-8000 10-8000	1-500 1-4000		7.0 8.0	9.0 10.5
LO Drive Level (dBm)				0		+5
LO Leakage (dBm)						
LO-RF	10-8000	10-8000			-7	
LO-IF	10-8000	10-8000			-7	
RF-IF Isolation (dB)	10-8000	10-8000			25	
Input 1 dB Compression (dBm)	10-8000	10-8000			+16	+15
Input Two-Tone Third Order Intercept Point (dBm)	10-8000	10-8000			+25 to +30	
Bias Requirements (mA) <sup>1</sup> +5.0 Volts DC					120	180

<sup>1</sup>Positive-bias only required.

### Part Number Options

<i>Please specify diode level and package style by adding to model number.</i>	
Package Style(s) <sup>1,2</sup>	Example
<a href="#">UJ</a> , <a href="#">UZP</a>	T3A-8 <a href="#">UZP</a>

<sup>1</sup>Connectorized test fixtures available for most carrier and surface mount packages. Consult factory.

<sup>2</sup>For non-connectorized packages, specify I-port configuration by adding -1 or -2 suffix to model number. Default is -2 configuration when not specified.

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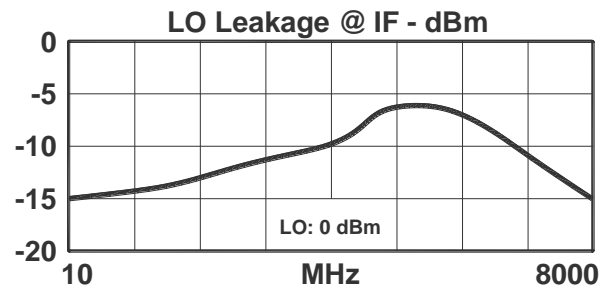
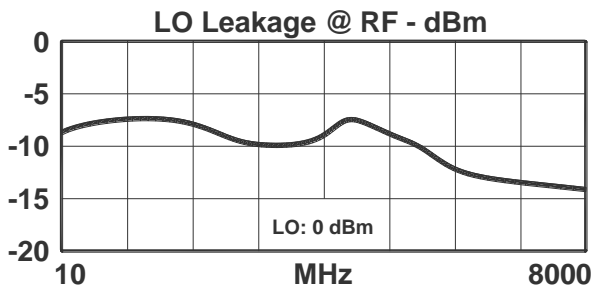
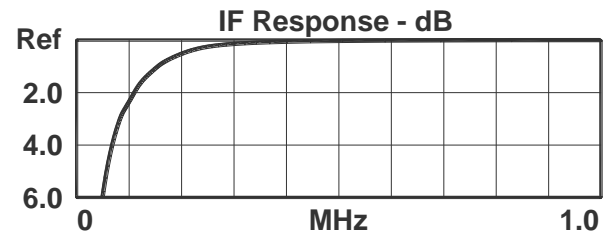
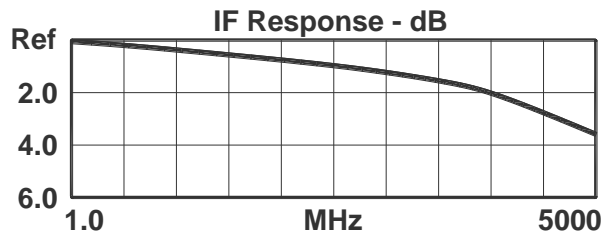
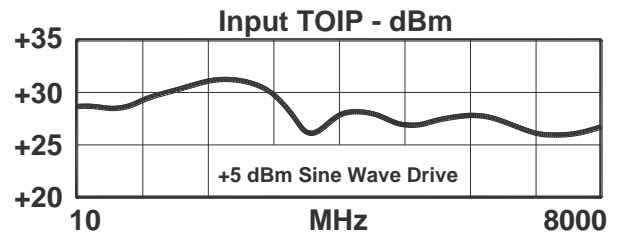
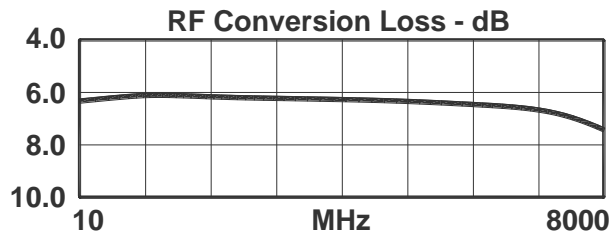
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LO/RF 10 to 8000 MHz  
IF 1 to 4000 MHz

Typical Performance



DATA SHEET NOTES:

1. Mixer Conversion Loss Plot IF frequency is 100 MHz.
2. Mixer Noise Figure typically measures within 0.5 dB of conversion loss for IF frequencies greater than 5 MHz.
3. Conversion Loss typically degrades less than 0.5 dB at +100°C and improves less than 0.5 dB at -55°C.
4. Maximum LO input power is +15 dBm.
5. Maximum RF input power is +25 dBm.
6. Specifications are subject to change without notice. Contact Marki Microwave for the most recent specifications and data sheets.
7. Catalog mixer circuits are continually improved. Configuration control requires custom mixer model numbers and specifications.

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