



Model Number Ka59108 Diplexer / Amplifier Assembly

Rev. B
03/07/13

Features:

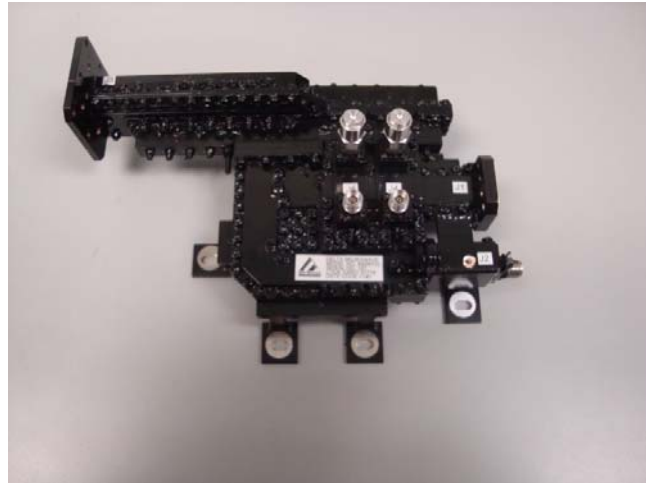
- Small Form Factor
- Low Loss

Applications:

- Data Link

Package Size:

- 1.9" x 4.3" x 5.6"
(Please see outline for exact dimensions)



Specifications: (+25° C)

TX Channel Characteristics (Port J1 to J3)

Passband	25250 to 27500 MHz
VSWR TX Input	1.5:1 Nominal, 1.65:1 Maximum
VSWR Antenna TX/RX	1.5:1 Maximum
Insertion Loss	1.5 dB Maximum
Insertion Loss Variation	1.0 dB Maximum
Insertion Loss Variation (any 100 MHz Passband)	0.3 dB Maximum
Group Delay Variation	3.0 ns Maximum



Delta Microwave

300 Del Norte Blvd. Phone: 805.751.1100 email: sales@deltamicrowave.com
Oxnard, CA. 93030 Fax: 805.240.9544 www.deltamicrowave.com

Delta Microwave's Quality Management System has been assessed by NSF-ISR and found to be in conformance with AS9100:2009, Rev. C. Delta Microwave reserves the right to change specifications without notice. Please verify specification revision letter upon order placement.

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Written By

Approved By



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Specifications: (+25° C)

TX Channel Characteristics (Port J1 to J3) (Continued)

Rejection	90 dB Minimum from DC to 22550 MHz 125 dB Minimum from 22550 to 23550 MHz 25 dB Minimum from 23550 to 24900 MHz 15 dB Minimum from 24900 to 25023 MHz 25 dB Minimum from 27850 to 28300 MHz 50 dB Minimum from 28300 to 30200 MHz 40 dB Minimum from 30200 to 36600 MHz 30 dB Minimum from 36600 to 36960 MHz 80 dB Minimum at 36960 MHz 30dB Minimum from 36960 to 40000 MHz
Power Handling	50 dBm (100W)

RX Channel Characteristics (Port J3 to J2)

Passband	22550 to 23550 MHz
VSWR RX Output	1.5:1 Maximum
VSWR Antenna TX/RX	1.5:1 Maximum
Gain	36.5 to 41.0 dB
Gain Variation	1.0 dB p-p Maximum
Gain Variation, Any 100MHz Passband	0.3 dB p-p Maximum
Group Delay Variation	1.0 ns Maximum
Noise Figure	3.7 dB Maximum
1 dB Compression	8 dBm Minimum
3 rd Order Intercept Point	18 dBm Minimum
Spurious	-60 dBc Maximum



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03/05/13

Specifications: (+25° C)

RX Channel Characteristics (Port J3 to J2) (Continued)

Rejection	95 dBc Minimum from DC to 19500 MHz 15 dBc Minimum from 23900 to 25250 MHz 125dBc Minimum from 25250 to 27500 MHz
Power Handling	8 dBm (6.3W) Maximum
LNA Power	14.25 to 15.75 VDC, 180mA Maximum

Isolation (TX/J1 to RX/J2)

Isolation	84 dB Minimum
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VSWR Coupler Characteristics (Port J4)

Coupling Factor	40 ± 1dB (across TX Passband)
Directivity	12 dB Minimum
VSWR Out	1.3:1 Nominal, 1.5:1 Maximum

TX Coupler Characteristics (Port J5)

Coupling Factor	40 ± 1dB
Directivity	12 dB Minimum
VSWR TX Coupled Out	1.3:1 Nominal, 1.5:1 Maximum

Environmental (First Article Only)

Baseplate Temperature, Non-Operational	-55° to +85° C Per MIL-HDBK-5400, Figure 1, Class 1, Curve B (adjusted to +85° C at sea level)
Base Plate Temperature, Operational	-40° to +75° C Per MIL-HDBK-5400, Figure 1, Class 1, Curve A



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Specifications: (+25° C)

Environmental (First Article Only) (Continued)

Cold Start Temperature	I)	Unit shall be capable of having power applied at the extreme low temperature of -55° C baseplate temperature without suffering damage.
	II)	Unit is not required to function per specification upon application of power at -55°C baseplate temperature; however, once the unit warms up to -40°C baseplate temperature it shall function per the performance specification.
	III)	A manual reset (power cycle) shall be permitted if necessary upon the unit warming to -40°C baseplate temperature.
Temperature Shock		10° C per minute thermal shock environment per RTCA/D0-160D, Section 5.



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