Wide Band Multiplexer

0.5 to 40.0 GHz Low Profile, 0.400" Package Height

Diplexers

Triplexers

Quadruplexers

Quintaplexers

Sextaplexers

DESCRIPTION The Microphase low profile contiguous channel Wide Band Multiplexer Series is available over the frequency range of 0.5 to 40.0 GHz and offers a number of features. Compact and lightweight, all models are 0.400" high; yet product performance is not compromised.

ADVANTAGES Any combination of twelve standard crossover frequencies from 1 to 34 GHz may be selected to achieve broadband multiplexing as required. With this design flexibility multiplexing is easily achieved for the most popular EW bands from 0.5 to 40.0 GHz. Band edge rejection options are available and all units may be adapted for custom configurations.*

Microphase wide band multiplexes achieve excellent electrical performance, mechanical reliability and environmental stability. Compact and very rugged, all of our products are 100% tested and readily available. These components can be designed to your specifications.

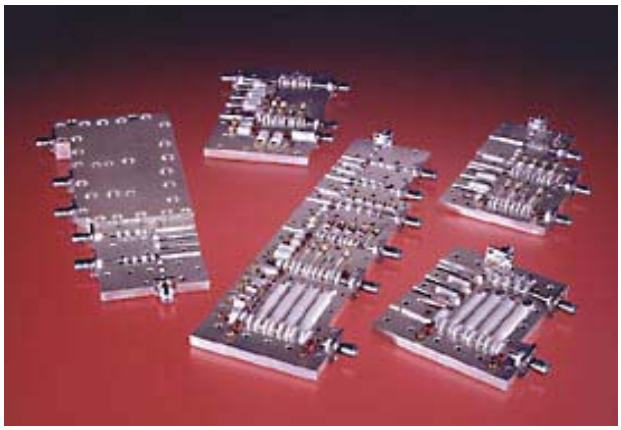
Superior Electrical Performance

Excellent Frequency Stability

Low Insertion Loss

Small Size

"Thin" Package Height



*** Notes:**

a. Most multiplexing combinations are available. Some exceptions may apply, for example, when the channel bandwidths are extremely wide (greater than 18:1).

b. Whenever a highpass performance is not specified at the low band edge, the channel pass band extends to DC.

c. In units where the channel operates to 40.0 GHz, no band end rejection is available.

d. Rejection beyond 40 GHz is not provided.

e. All connectors are SMA female except in models that have 18-40 GHz channels in which case the common input and the high frequency channels are supplied with Type K female connectors.

These units can be designed to your specification. Please contact Microphase for your special design requirements.

PART NO. DESIGNATION

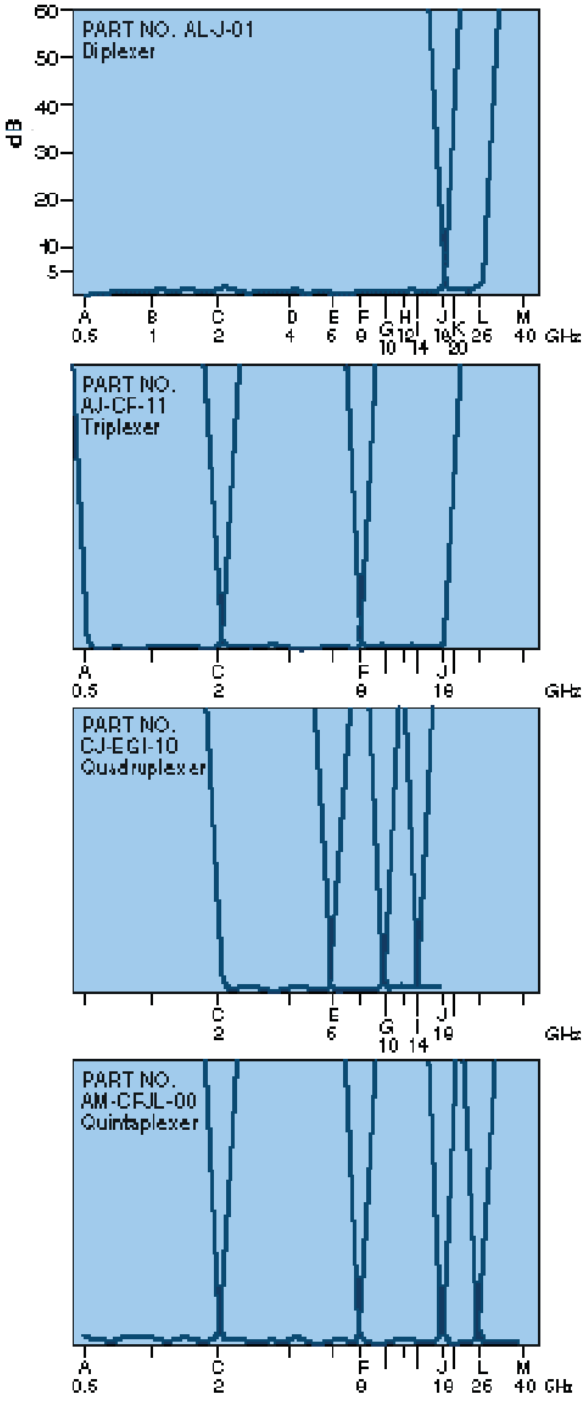
An alpha-numeric part number identifies the performance characteristics. Thirteen frequencies have been assigned. letters A-M, covering 0.5-40.0 GHz (see examples).

First two letters give the total operating band (low/high)

Second group of letters are crossover frequencies (in low-to-high order) offset by a dash.

A two number suffix indicates if rejection is required at the end channels. No end channel rejection required, -00; Rejection at low end only, -10; Rejection at high end only, -01; Rejection at both ends, -11

SPECIFICATIONS	
Frequency Range	0.5 to 40.0 GHz
Crossover Frequencies	1, 2, 4, 6, 8, 10, 12, 14, 18, 20, 26 and 34 GHz
Crossover Regions	± 4 % f_{CO} max.[1]
Crossover Insertion Loss	4.5 dB max.
Passband Insertion Loss	1.0 dB max. (DC-18 GHz) 1.5 dB max. ((18-40 GHz)
Common Port VSWR	2.0:1 max. (DC-18 GHz)[2] 2.5:1 max. (18-40 GHz)
Selectivity	60 dB min., ± 15% f_{CO} and band ends when specified
Operating Temperature:	-54°C to +85°C



Notes:

1. ± 5% 2 GHz and below
2. 5 dB below 2 GHz
3. Diplexers only. For other multiplexers, VSWR-2.2:1 max.

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