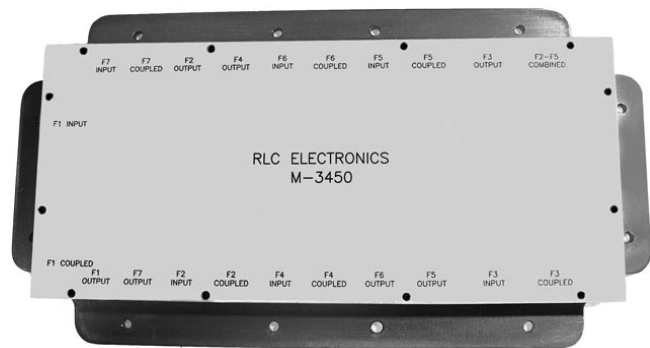


# INTEGRATED ASSEMBLIES COMPONENT INTEGRATION



RLC Electronics can supply many integrated assemblies for both military and commercial applications. These devices can combine filters, multiplexers, switches (both pin diode and mechanical), couplers, hybrids, power dividers, attenuators, detectors, and cables in a single package.

An example of an integrated device supplied by RLC Electronics is the M-3655. The M-3655 combines two inputs of 9.5 GHz to 17 GHz and divides the sum to two diplexers, which divides the frequency band into four approximately equal bands. Each diplexer output is further split through a power divider, providing 8 output ports. VSWR achieved at all ports was less than 2:1, with VSWR typically below 1.5:1. Flatness of <1dB and phase linearity of <10 degrees

within each band were also achieved. Maximum loss within pass bands was less than 17 dB.

A second example is the M-3450, which takes seven RF inputs and provides one coupled output and one filtered output for each input. The RF inputs are 1-2 GHz, 2-4 GHz, 4-8 GHz, 8-12 GHz, 12-18 GHz, 18-26.5 GHz, and 26.5-40 GHz. Each input is followed by a 10 dB, multi-section coupler and a 16 section bandpass filter. The 16 section filters achieve 60 dB rejection at  $.85 \times$  the lower band edge frequency and at  $1.15 \times$  the upper band edge frequency. VSWR is <2:1 within the passbands above 18 GHz, and <1.6:1 within the passbands below 18 GHz.

Each of the four channels between 2 and 18 GHz feeds a second coupler. The outputs of the second coupler feed a 2-18 GHz power combiner, providing a 2-18 GHz monitor port.

Specifications subject to change without notification.

Tolerances unless otherwise specified are .xx +/- .02. xxx +/- .005

Specials requiring closer tolerances, different frequency ranges, special connectors different materials, finishes, etc. can be furnished upon request.



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