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Satellite IF switch IC allows 16 satellite inputs



Maxim Integrated Products introduces the MAX12005, the industry's first 8 x 4 satellite IF switch IC that is expandable to allow up to 16 satellite signals. Highly integrated, the MAX12005 is flexible and adaptable for a wide range of space-constrained, satellite IF distribution and multiswitch applications.

The MAX12005 is very flexible. Its 8 x 4 matrix is configured with an additional IF switch input so it can expand to accept 16 satellite input signals. It supports a single, quad low-noise block (LNB) with vertical or horizontal polarization signals that can be matrix-switched to four satellite receivers. A configuration of eight satellite IF inputs to eight satellite receivers is also possible by using two MAX12005 ICs and adding eight input splitters.

Signal quality is maintained even with high cable signal losses. Four integrated 9:1 multiplexers with variable-gain input and output amplifiers provide sufficient gain to compensate for the signal-path losses in the cable distribution and for switch insertion losses.

To save space and cost, the MAX12005 utilizes two control methods: DiSEqC(TM) 2.0 decoding and tone/voltage decoding. These control methods enable four operational modes, which include LNB mode for use within the LNB mentioned above, cascade master mode, cascade slave mode, and single mode. Furthermore, the four embedded DiSEqC decoders eliminate the need for external control components.

The MAX12005 is fully specified over the -40 degrees Celsius to +85 degrees Celsius extended temperature range. It is available in a small 7mm x 7mm, lead-free, 48-pin TQFN package. Prices start at \$7.44 (1000-up, FOB USA)

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[1] http://www.maxim-ic.com