

WEBWATCH Nancy Friedrich/Editor

Online Tools Work To Ease Design Efforts

These days, more and more engineering research and design is done on the web. To leverage the increasing time spent online by engineers, many companies are beefing up their sites by adding design tools and product specifiers. Samtec, for example, just added an interactive radio-frequency cable builder to its site. Such offerings are becoming increasingly common in the cable and connector world. Yet online activity also is rising in other microwave design areas. For instance, the Filter Wizard from K&L Microwave, Inc. strives to shorten RF and microwave filter design cycles.



■ This online tool provides cable type and length options followed by a choice of end connectors.

The Samtec program, which is dubbed the RF Cable Assembly Builder, is available at www.samtec.com/rfbuilder. Its goal is to help customers quickly and easily create valid Samtec part numbers for RF cable assemblies (see figure). Currently, the program allows the specification of RF cable assemblies using RG178, RG174, and RG316 coax cables for MMCX, MCX, SMA, SMB, TNC, BNC, and N type RF end options as well as 1.13-mm- and 0.81-mm-diameter coax cables for micro-high-frequency end options.

The RF Cable Builder provides cable type and length options. It then offers a choice of End 1 and End 2 RF connectors for the chosen cable type. Once these options have been specified, the complete RF cable-assembly part number can be viewed along with engi-

neering drawings and technical specifications for the series. With the newly validated part number, pricing and samples of the RF assembly can be requested.

The Filter Wizard from K&L Microwave, which can be accessed at www.kfilterwizard.com, also strives to help engineers make the best design choice for their application. The free Web-based solution helps design engineers select and confirm the feasibility of RF and microwave filter products for applications ranging from defense and telecommunications to aerospace. Filter Wizard targets front-end design efforts as well as redesigns or general testing. Its goal is to eliminate specification errors while freeing up valuable engineering resources.

Filter Wizard works in a simple four-step process. The initial phase prompts engineers to enter the suitable frequency level for their specific applications. The program enables engineers to input performance frequency levels from DC-40 GHz. (Frequency levels beyond this range are directed to a K&L representative.) Once the frequency has been submitted, the program produces a roster of possible filters. Applicable filters are further broken down by shape, size, and cost. As a result, the engineers can select the most appropriate and cost-effective solution. After a filter has been selected, Filter Wizard provides the performance plots and data used in the physical product design. Final entry is directed to K&L, where a quote is issued.

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