CELLFLEX Lite UCF: Ultra-flexible feeder from RFS

With a corrugated copper inner conductor, and corrugated aluminum outer, the new ultra-flexible CELLFLEX Lite UCF cable can be connected directly to base station antennas.

Radio Frequency Systems has added a new, ultra-flexible, foam dielectric coaxial cable to its CELLFLEX Lite range. Courtesy of a corrugated copper inner conductor, the new cable—designated 'UCF78-50JL'—displays exceptional bending properties, and can be site-connected directly to base station antennas.

Corrugated aluminum outer conductors are common to all CELLFLEX Lite cables. The ultra-flexible ‘UCF’ cable represents the next step in the evolution of the range, following the earlier development of ‘LCF’ versions. These comprise a 7/8-inch Lite cable with a smooth copper-tube inner conductor and a 1-5/8-inch Lite version with a corrugated copper-tube inner conductor. The new CELLFLEX Lite UCF also complements the existing range of ultra-flexible copper cables, being the world’s first ultra-flexible cable with an aluminium outer conductor.

According to RFS VP Global Transmission Line Products, Bernd Furche, site deployment of CELLFLEX Lite UCF removes the requirement for jumper cables between the feeder cable and the antenna. “With no need for jumper cables, operators can make significant savings on capex. This is in addition to the cost-effectiveness of installing a cable with a corrugated aluminum outer conductor,” he said.

Furche said that the newly released CELLFLEX Lite UCF, and its accessories, are particularly suited to applications where space restrictions, or other factors, encourage direct connection of the feeder cable to the antenna. He said that this technique represents a departure from conventional antenna system design. The direct connection method is gaining acceptance and has been widely adopted in many parts of the world.
In parallel with this advance in cable design, RFS has developed a set of connectors, grounding kits and other accessories that are compatible with both copper and aluminum outer conductors. These accessories have been designed to support the entire CELLFLEX range. A case-in-point is the OMNI FIT connector series, introduced in 2007.

Combining ultra-flexible performance with the traditional advantages of a corrugated aluminum outer conductor—such as light weight, mechanical strength and excellent electrical performance—CELLFLEX Lite UCF is attracting attention around the world. “Already many operators and OEMs have expressed interest, and are looking forward to receiving cables for site trials,” said Furche. This high level of interest confirms the view that ultra-flexible, lightweight feeder cables are the way of the future.

To explore RFS’s comprehensive CELLFLEX solution set, visit the RFS stand at Mobile World Congress 2008: Hall 2, Stand C53, Venue Fira de Barcelona, Montjuic, Barcelona, Spain, 11 to 14 February 2008.

[IMAGE CAPTION]: With a corrugated inner conductor, CELLFLEX Lite UCF displays exceptional bending properties, and can be connected directly to base station antennas.

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**Company background**

Radio Frequency Systems is a global designer and manufacturer of cable, antenna and tower systems plus active and passive RF conditioning modules, providing total-package solutions for wireless infrastructure.

RFS serves OEMs, distributors, system integrators, operators and installers in the broadcast, wireless communications, land-mobile and microwave market sectors. As an ISO compliant organization with manufacturing and customer service facilities that span the globe, RFS offers cutting-edge engineering capabilities, superior field support and innovative product design. RFS is a leader in wireless infrastructure.