Application Support

Flexible High Frequency RF Cable Assemblies for Connecting Modules





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Flexible Alternative to Formed Semi-Rigid Cables

Component Engineering challenges often require finding suitable solutions based on the available skill levels or experience of those tasked with assembly. With RF Cables, sometimes the skill to install formed semi-rigid without damage in a specific application is not available.

For these events, we recommend more easily installed Flexible RF Cables. Our LSA series has been designed specifically to match up with the performance of Semi-Rigid, but with greater ease using a flexible cable. We offer 3 common series with a wide array of common connector options.

LSA₂₈

Using our A28SS Cable with a Braided shield over a spiral foil shield, these assemblies are our most widely used performance solution.
Options for applications from DC to 27GHz.

LSA29

With our A29SS cable also using the same Braid Construction but on a larger diameter, this series is great for lower loss across long lengths/ Solutions from DC to 27GHz

LSA61

When high frequencies are needed, this series steps up to handle applications up to 67GHz. Our A61SW cable has a similar construction by a higher performing dielectric.



LSA Cables are all terminated with Direct Solder style connectors for higher

RF performance.



Formed Cables

Highly tolerances and easily modified or bent out of shape causing performance changes.



Temperature

Our LSA Series all have FEP Cable Jackets & support Temperatures up to 125°C

AN20A-LSA

Performance Enhancements

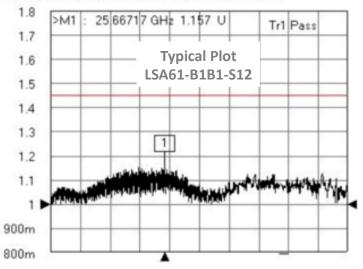
ConductRF has developed many RF connectors in recent years to enhance RF performance in our LSA series cable assemblies. Low Profile SMA R/A male connectors that operate to 27GHz are just one example.

Short Lead Times Maintained

These solution are heavily stocked to component level by ConductRF, so odd configurations, specific lengths & custom marking are all available with short lead times.

Many Standard Length LSA Cable options are available directly from Digikey!

Tr1 S11 Refl SWR RefLvl: 1 U Res: 100 mU/Div



Case Study - LSA61-B1B1-S12

12" 1.85mm male to 1.85mm male.

A super example of Low VSWR thru' 67GHz on a 1.85mm 12" Jumper Cable. This assembly replaced an expensive complicated solution that was more than double the cost.

PART NUMBER OPTIONS

Blue FEP Jacketed OD = 0.104" - LSA28 Series

Blue FEP Jacketed OD = 0.163" - LSA29 Series

Black FEP Jacketed OD = 0.104" - LSA61 Series

LSA28-S1M1-S12 S \(\) SMA Sxx = Inches 1 = Straight Male LSA28(to 27GHz M = MCXFxx = Feet 2 = R/A MaleLSA29(to 27GHz) S = SMA3 = Bulkhead Mount xMx = MetersLSA61(to 67GHz T = TNC4 = Panel Mount Cxx = cmN = Type-NF = Straight Female P = SMPNote - MMCX Styles are Reversed D = 2.92 mm (40 GHz)

i.e. ZYZY or 1M & 2M for Straight & R/A Males.

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Example - LSA28-S11M-S06

= SMA male to MMCX male

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C = 2.4mm(50GHz)

B - 1.85mm(67GHz)