

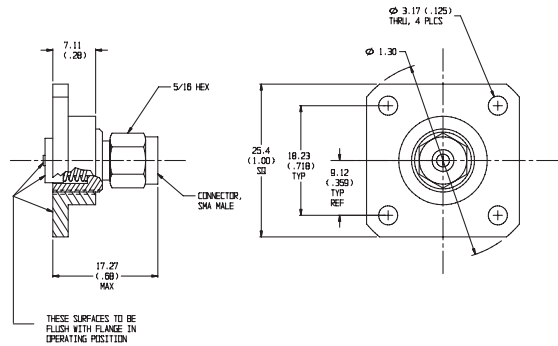
Planar Blind-Mate® Connectors

Custom Examples

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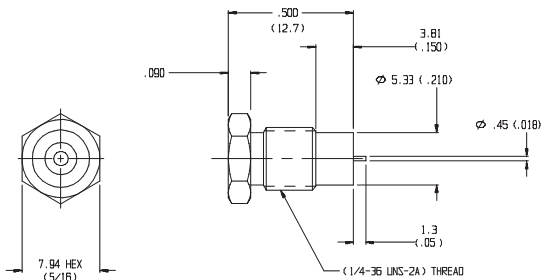
The following examples illustrate some typical Blind-mate designs that can be either modified or used as a basis for creating a specific blind-mate connector or system for your application:

Example 1:



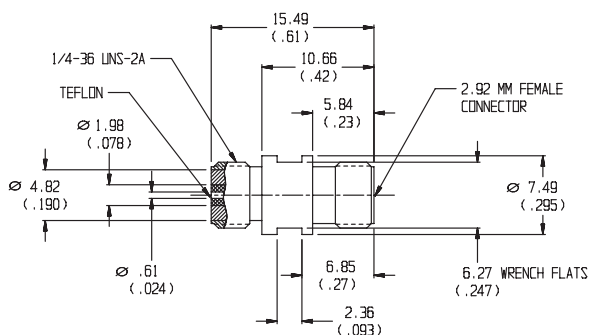
This example shows a blind-mate to SMA flange connector which includes a standard 4 hole mounting pattern and SMA connectors per MIL-C-39012 connectors. These connectors can be optimized to a specific frequency range and/or your defined specifications.

Example 2:



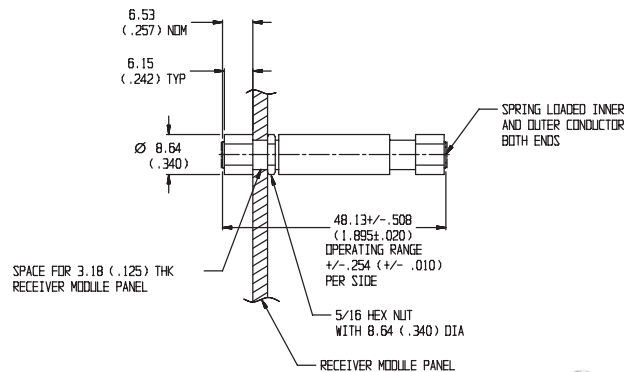
Example 2 illustrates a blind-mate to a microstrip launch design that features a non-piloting (fixed), spring loaded inner connector. Specifications include DC to 4 GHz frequency operation, maximum insertion loss of 0.5 dB and maximum SWR of 1.25.

Example 3:



Example 3 illustrates a blind-mate to 2.92mm test probe design that features wrench flats, DC to 18 GHz frequency operation, maximum insertion loss of 6 dB and maximum SWR of 1.25. This was specifically designed to interface with standard SMA, 3.5mm, and 2.92mm Bulkhead connectors.

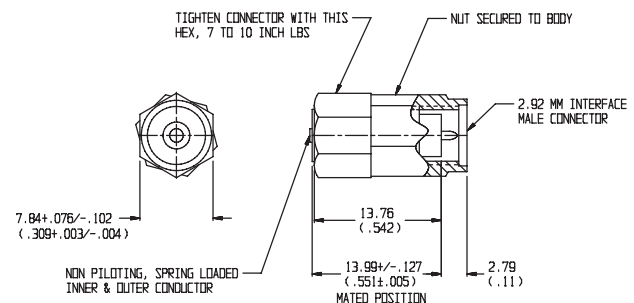
Example 4:



This example illustrates shows a 6 dB blind-mate attenuator design that consists of two floating receivers with a compression spring and spring loaded contacts (inner and outer conductors). Designs can also be supplied with stationary fixed surface connectors. Specifications for this unit include DC-32 GHz operation, 1.35 maximum SWR, and a radial alignment ± 0.02 offset.

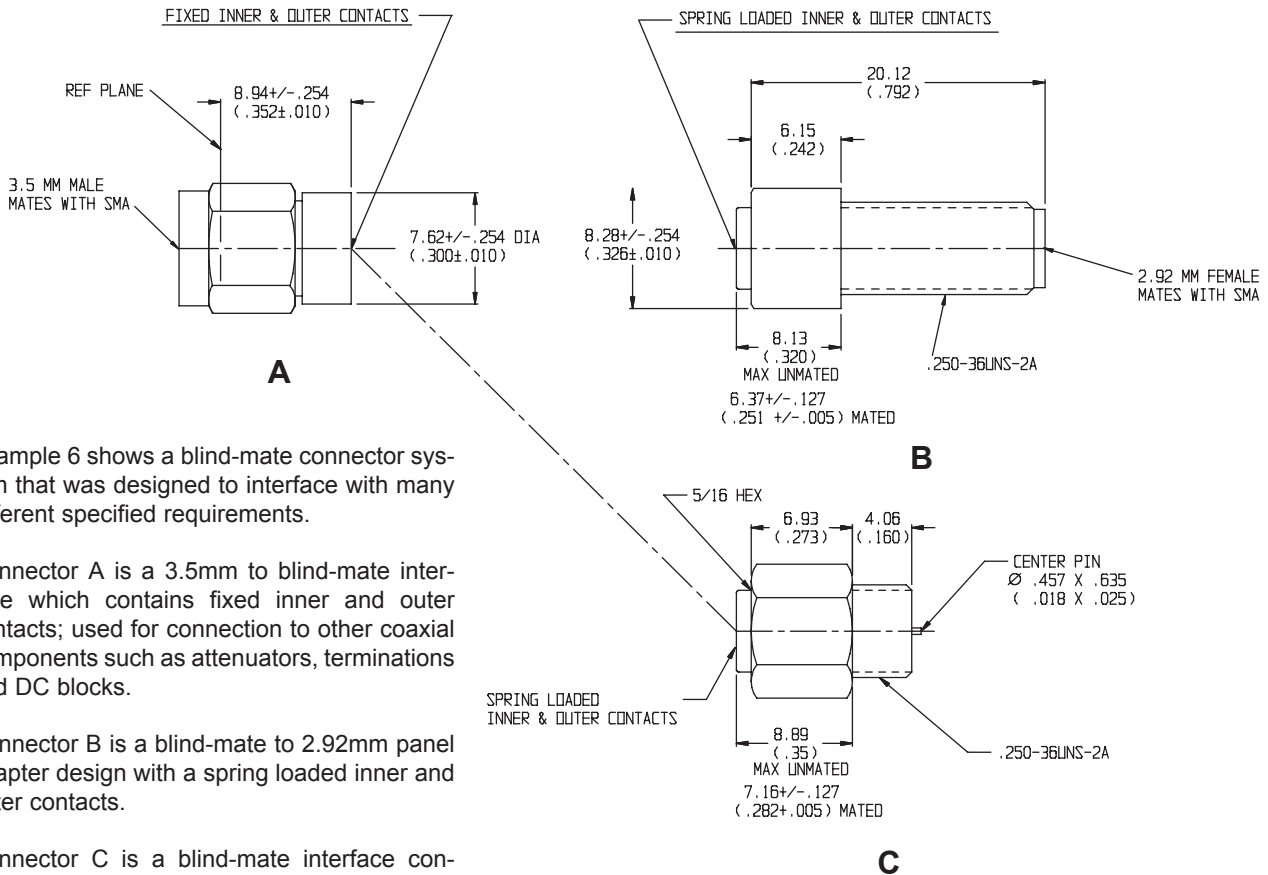


Example 5:



This example illustrates a blind-mate to 2.92mm connector design that features a non-piloting, spring loaded inner and outer connector. Specifications included DC to 40 GHz frequency operation, static pressure of 50 PSI, temperature range of -50°C to $+125^{\circ}\text{C}$ maximum insertion loss of 0.3 to 1.5 and maximum SWR of 1.30-1.70.

Example 6:



Example 6 shows a blind-mate connector system that was designed to interface with many different specified requirements.

Connector A is a 3.5mm to blind-mate interface which contains fixed inner and outer contacts; used for connection to other coaxial components such as attenuators, terminations and DC blocks.

Connector B is a blind-mate to 2.92mm panel adapter design with a spring loaded inner and outer contacts.

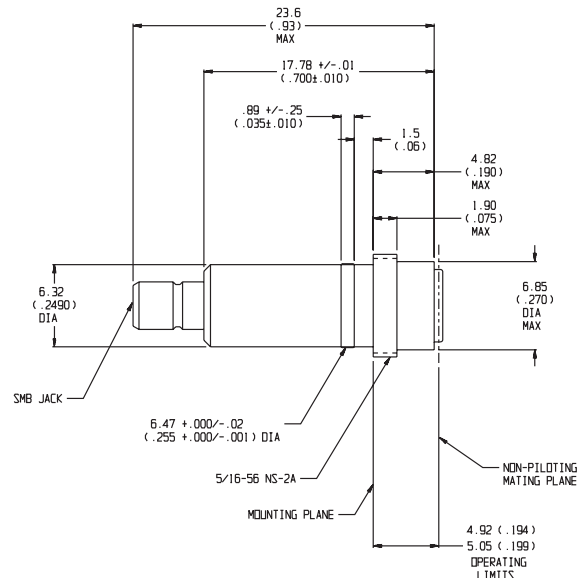
Connector C is a blind-mate interface connector that can be easily installed to coaxial cables or printed circuit board assemblies.

Example 7:

This example illustrates a low cost blind-mate to SMB configuration specifically designed and optimized for RF & wireless applications. These connectors offer not only all the features of the Planar Blind-mate interface but the SMB connector provides an additional quick disconnect for cable assemblies.

Specifications for this connector include DC to 2.0 GHz operation, 50 Ω nominal impedance, insertion loss of 0.35 dB, SWR of 1.15-1.30, radial/axial misalignment of ±0.020" OFFSET (blind-mate side), **operating temperature of +10°C to +40°C**, dielectric withstanding voltage of 1000 Vac and a insulation resistance of **1000 MΩ nominal**.

These stainless steel connectors contain non-piloting contacts that provides long life (1,000,000 matings) and offers a repeatability of ±0.05 dB typical.



NOTE: All dimensions are given in mm (inches) and are maximum, unless otherwise specified.

Planar Blind-Mate® Connectors

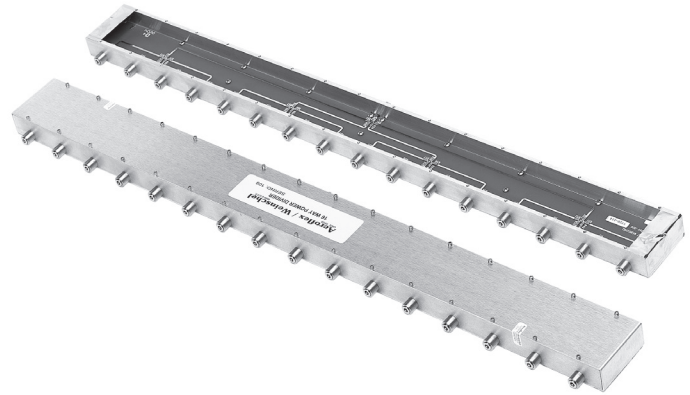
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Example 8: 16 Way Power Divider - High Density Packaging Environment

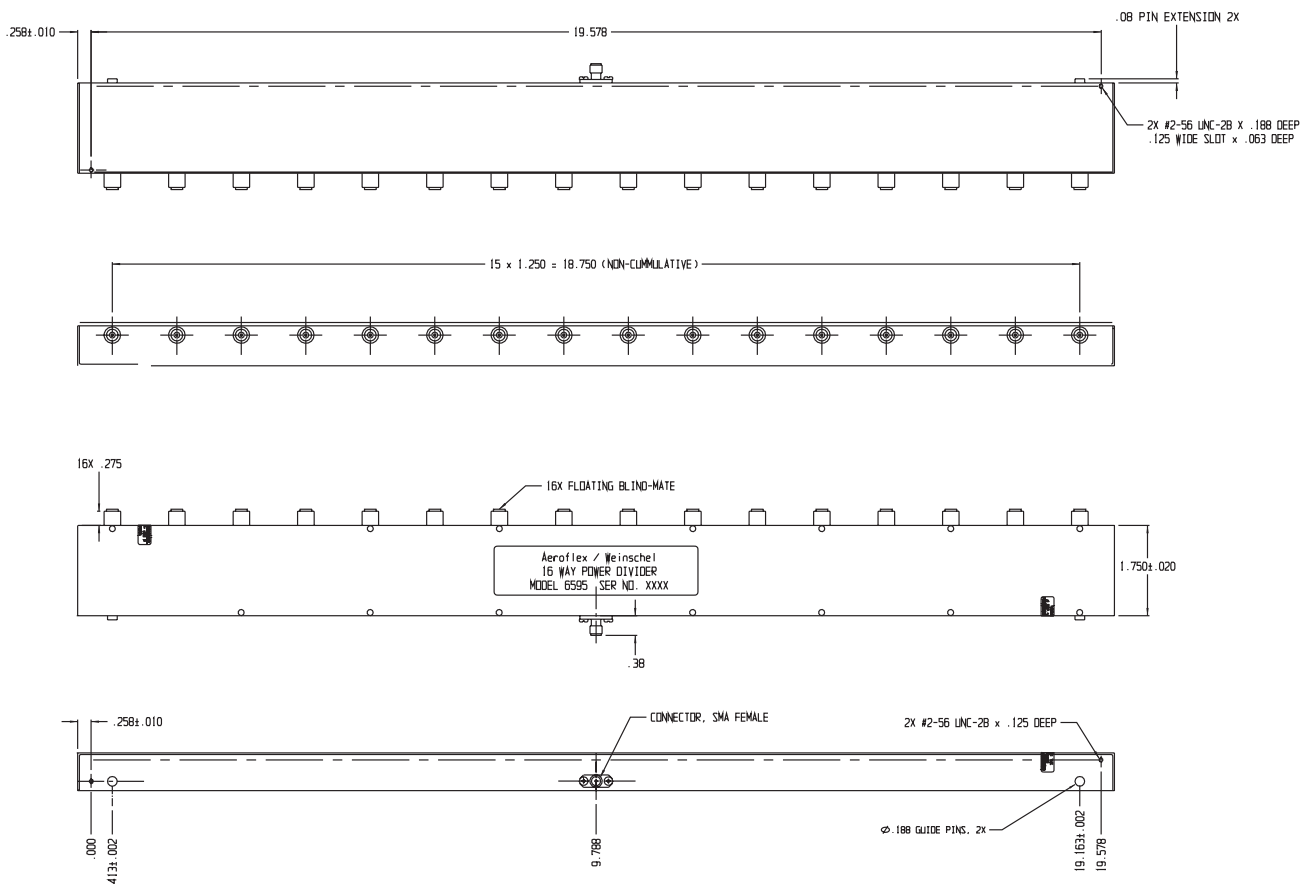
This example shows how a series of blind-mate connectors are used in a 16 Way Power Divider module that is used in a high density packaging environment.

Specifications

Frequency Range:	30 MHz - 3 GHz
Impedance:	50 ohms nominal
Isolation:	23.5 minimum
RF Input Power:	1 Watt maximum (any port)
Operating Temperature Range:	0 to 60 °C



PHYSICAL DIMENSIONS:



NOTES: All dimensions are given in inches and are nominal, unless otherwise specified.