

### Overview

The AFI-Dart product series is a high-isolation, high-density connector series. Designed to be modular and scalable, it's a cost-effective solution that offers low reflection and high float, with compliant pin solder-less configurations available. These connectors can be color coded to reduce the chance of mismatching.

This series of connectors is manufactured with stamped and formed contacts and injection molded housings. They are an ideal board to board solution allowing for tight pitch. 50 and 75 Ohm products are available in multiple PCB and cable terminated configurations.

All AFI-Dart products incorporate a unique “crash-proof” bullet design for durability and maximum float that transfers the gathering geometry from a typical “catcher’s mitt” on a jack to a Dart geometry on a plug. This creates reduced line pitch with uncompromised gathering, and a lead-in between blind mated interconnects. The Dart geometry of the plug also provides protection to both the center and outer contacts through the means of a closed entry design and protective insulator extensions. Multi-port connections feature port isolation better than -60 dB to 6 GHz.

### Features and Benefits

- High Isolation, Low Reflection, High Float
- Modular and scalable
- Mixed signal connections
- High DC current inserts
- Vertical, right-angle, and edge mount PCB solutions
- Cost effective
- Stamped and formed contacts
- Injection molded housings and insulators
- 4.5mm pitch for multi-port connectors

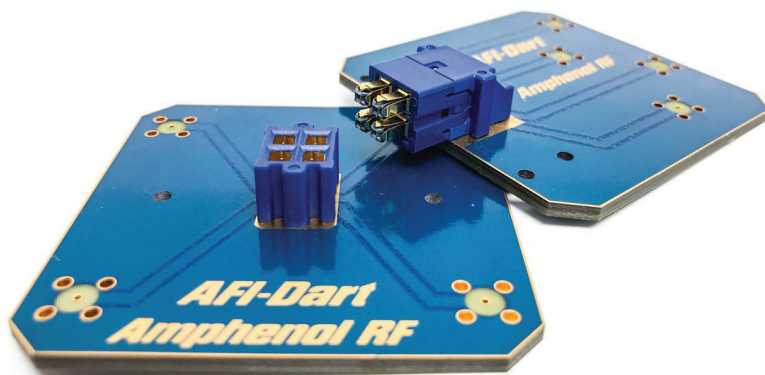
### Applications

- Broadcast (75  $\Omega$ )
- Broadband equipment
- Mixed signal connectivity
- Backplane applications
- Wireless LAN applications
- Multi-channel wireless antennas
- Automotive applications

### Amphenol RF

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Danbury, CT 06810

For more information visit [www.amphenolrf.com](http://www.amphenolrf.com)  
or call 800.627.7100

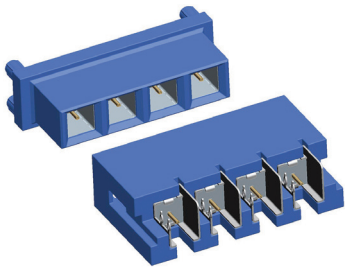


### Technical Specifications

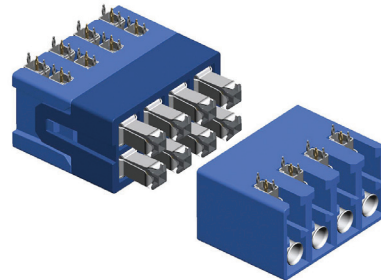
Electrical		
Impedance	50 $\Omega$	75 $\Omega$
Frequency	DC - 18 GHz	
Return Loss		
Range #1	-30 dB (DC - 1 GHz)	-23 dB (DC - 3 GHz)
Range #2	-22 dB (DC - 3 GHz)	-19 dB (3 GHz - 6 GHz)
RF Leakage	-70 dB (3 GHz)	
Power Handling	10 W (DC - 2 GHz)	20 W (DC - 3 GHz)

Environmental	
Temperature Range	-55°C to +155°C

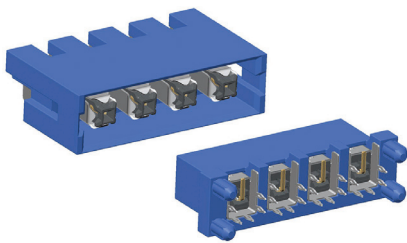
Mechanical	
Mating Cycles	200 cycles min.
Engagement Force	6N max.
Disengagement Force	1N min.
Axial Misalignment	2mm max.
Radial Misalignment	1mm max.
Board-to-Board Distance	10mm max.



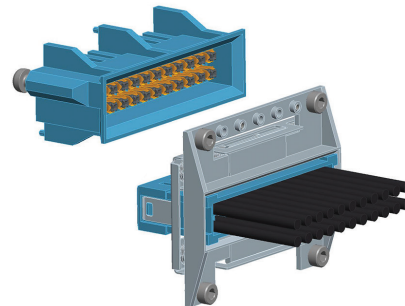
Edge Launch  
Termination with  
Post Contact



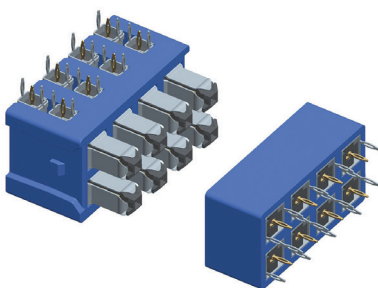
Right Angle  
PCB Mount  
with Crash Proof  
Bullet Design



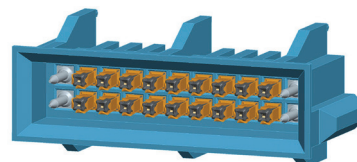
Vertical Mount with  
Surface Mount  
Right Angle Contact



Versatile Design with  
PCB and Cable  
Termination Options



Compliant Pin  
Termination for  
Easy PCB Assembly



Multi-Port Design  
with RF and  
Power Contacts