

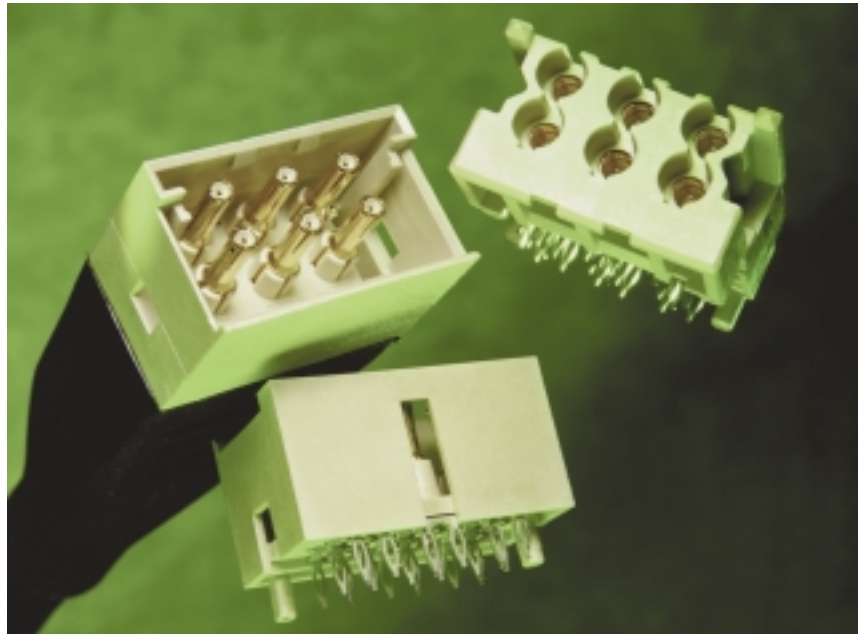
**Ganged RF System Connects High Bandwidth RF Signals In Blind-Mate Daughtercard Receptacles and Backplane Headers**

The Ganged RF system offers customers innovative packaging with selectively loaded housings for connecting up to 2.5GHz single-ended or analog RF signals. The blind-mate right-angle daughtercard receptacles and vertical backplane headers are available in three- and four-port sizes with selective loading of high-performance vertical signal pairs. The press-fit terminals allow simple termination to the PCB with optional application tooling available from Molex.

Options for cabling in both sizes are also available in several standard lengths to connect with the right-angle daughtercard receptacles.

**Features and Benefits**

- 50 Ohm  $\pm 10\%$  matched impedance contact system for low insertion loss and optimal signal integrity
- 60 db min. isolation to minimize crosstalk
- Press-fit termination and locator pegs promote easy and reliable board termination
- Modular assembly of vertical signal pairs allow custom loading
- High-temperature 94V-0 housings with generous chamfers and blind-mating lead-ins for reliable and consistent mating
- Contacts with 0.76 $\mu\text{m}$  (30 $\mu\text{"}$ ) min. gold plating on mating surfaces for excellent reliability



**74642, 74712**

**Right Angle Receptacle and  
Vertical Header**

**SPECIFICATIONS**

**Reference Information**

Packaging: Tray  
UL File No.: E107635  
CSA File No.: 152514 (LR19980)  
Designed In: mm

**Electrical**

Voltage: 5.0 VAC  
Current: 1.0 A max.  
Contact Resistance: 35 milliohms max.  
Dielectric Withstanding Voltage: 1000 VAC min.  
Insulation Resistance: 1 Gigaohm min.  
Return Loss:  
0-1.0GHz: 15dB, 1.4:1 VSWR  
1.0-2.5GHz: 12dB, 1.7:1 VSWR  
Insertion Loss: 0.5dB max.

**Physical**

Housing and Insulator: 94V-0 high temperature thermoplastic  
Terminals and Grounds: Tin Brass  
Outer Ground Contact: Phosphor Bronze  
Plating:  
Terminals:  
0.76 $\mu\text{m}$  (30 $\mu\text{"}$ ) min. Gold in contact area  
0.88 $\mu\text{m}$  (35 $\mu\text{"}$ ) min. Tin/Lead selective  
Grounds:  
0.88 $\mu\text{m}$  (35 $\mu\text{"}$ ) min. Tin/Lead overall  
Outer Ground Contact:  
0.76 $\mu\text{m}$  (30 $\mu\text{"}$ ) min. Gold overall  
Underplating: 1.27 $\mu\text{m}$  (50 $\mu\text{"}$ ) min. Nickel  
PCB Thickness:  
Daughtercard 3.2mm (.125") max.  
Backplane 4.5mm (.178") max.  
Operating Temperature: -45 to 85° C

**Mechanical**

Contact Insertion Force: 5.0N (1.1lb) max. per contact  
Contact Retention to Housing: 5.0N (1.1lb) min. per module  
Insertion Force to PCB: 50N (11.2lb) max. per terminal  
Durability: 500 cycles

# molex® 6.25mm (.246") Pitch Ganged RF

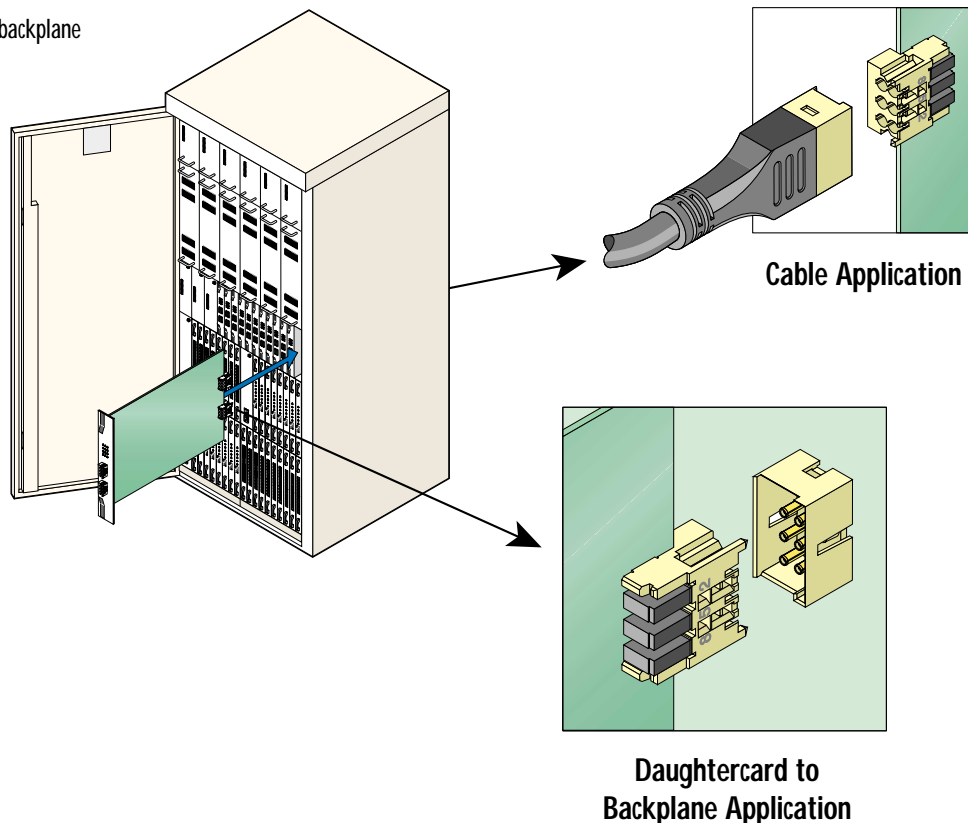
## Applications

Ganged RF connectors and cable assemblies are suitable where high bandwidth analog or blind-mating of critical high-speed circuits is required:

- Telecommunications
- Cellular base stations
- Wireless networking
- Single-ended digital applications
- Coaxial connections for daughtercard to backplane
- Wire-to-board applications

## 74642, 74712

### Right Angle Receptacle and Vertical Header



## ORDERING INFORMATION

Connector	Ports	Number of Contacts	Loaded Port Number	Order Number
Right Angle Receptacle	3	2	2	74642-1003
		4	2, 8	74642-1002
		6	2, 5, 8	74642-1001
	4	8	2, 5, 8, 11	74642-0001
		2	2	74642-0002
Vertical Header	3	2	2	74712-1003
		4	2, 8	74712-1002
		6	2, 5, 8	74712-1001
	4	8	2, 5, 8, 11	74712-0001
		2	2	74712-0002

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