

## Mohawk Category 5e and 6 8-Position Modular Plug (RJ-45s) Recommendations (Large Insulated Conductor Cables)

Mohawk recommends TIA 568 standard compliant installations for category 5e and 6 horizontal cables to allow for:

- Easiest upgrade of network and services over the lifetime of the structured cabling
- Simplest moves, adds and changes
- Extended product warranties offered by Mohawk or our connector partners

In keeping with the TIA/EIA 568-B standard, category 5e and 6 horizontal cables are not intended for direct termination to an eight-position modular plug (RJ45s). Horizontal cables are intended to be terminated into an eight-position modular jack at the work area and at a patch panel in the telecommunications room. These connections are made with a 110-type or punch down connection. Further, category 5e or 6 patch cords should not be field terminated as this could result in excessive return loss.

Certain situations may not allow the use of a jack or 110-type connection at both ends of the cable. These may include the direct connection of switches or hubs or other devices over longer distances, or may require the use of plenum, riser or outdoor rated cable.

In an attempt to provide the best available terminations, Mohawk has evaluated several suppliers of modular plugs that can fit onto our horizontal cable. These cables are often difficult to terminate properly with a standard modular plug intended for patch cordage because:

- Standard Plugs are made to fit small insulated conductor diameters, typically only fitting up to .039" (1 mm) insulated OD
- Mohawk's horizontal cables use solid vs. stranded copper conductors
- Many horizontal cables have larger insulation diameters that don't fit into the standard .039" (1 mm) holes inside the plugs

Three manufacturers have modular plugs that will accept the larger ODs and have been qualified for category 5e and 6 performances. These are:

**Sentinel Connector Systems**

1953 Stanton Street  
York, Pennsylvania USA 17404  
Tel: (717) 843-4240  
Fax: (717) 848-1949  
<http://www.sentinelconn.com/>  
UTP part number – 106-08080058-34  
STP part number – 106S08080058C34

Sentinel has several shielded and unshielded modular plugs that fit up to .042" or .048" insulated conductor OD's that are rated for Cat 5e. Cat 6 plugs of the same capabilities are currently in development.

**Bel Stewart Connector**

11118 Susquehanna Trail South  
Glen Rock, PA 17327  
Phone 717-235-7512  
Fax 717-235-4675  
<http://www.belfuse.com/stewartconnector/>  
UTP part number – SS-39100-011  
STP part number – SS-39200-010

Stewart has several shielded and unshielded modular plugs that fit up to .042" insulated conductor ODs.

**AMP**

Tyco Electronics  
Tel: (800) 553-0938  
E mail: [networking.help@tycoelectronics.com](mailto:networking.help@tycoelectronics.com)  
<http://www.tycoelectronics.com/>  
UTP part number – 5-1375204-X  
STP part number – 5-1479185-X

Amp also has several shielded and unshielded modular plugs that fit up to .043" insulated conductor ODs. All of these companies have plugs that fit up to .039" insulated conductor ODs. Please contact them to help select a plug to meet your needs.

Please see attached cross reference list for Mohawk's cable diameters.

\*\*Mohawk does not recommend this practice with our GigaLAN 10 cable and will make no recommendation on plug style field termination for this cable.

### Solid Conductor Cables

Cable Type	Mohawk P/N	UTP or ScTP	CMR, CMP Outdoor	Insulated Cond OD	Jacket Nom OD
GigaLAN Cat 6e+	LT42632	UTP	CMR	.044 max	.247
	HT42631	UTP	CMP	.046 max	.244
AdvanceNet Cat 6e	LT41193	UTP	CMR	.039 max	.225
	HT41192	UTP	CMP	.046 max	.225
6LAN Cat 6	LT49443	UTP	CMR	.040 max	.216
	HT49156	UTP	CMP	.041 max	.208
MegaLAN Cat 5E+	LT37935	UTP	CMR	.036 max	.180
	HT37934	UTP	CMP	.038 max	.189
5eLAN Cat 5e	LT43680	UTP	CMR	.036 max	.180
	HT43679	UTP	CMP	.036 max	.180
AdvanceNet Cat 6	LT48257	ScTP	CMR	.043 max	.265
	HT48267	ScTP	CMP	.046 max	.251
MegaLAN Cat 5E+	LT42471	ScTP	CMR	.043 max	.245
	HT42470	ScTP	CMP	.041 max	.224
5eLAN Cat 5e	LT48325	ScTP	CMR	.040 max	.234
	HT48314	ScTP	CMP	.040 max	.222
Cat 5	LT42087	ScTP	CMR	.042 max	.240
	HT42111	ScTP	CMP	.042 max	.230
AdvanceNet Cat 6	M57622	UTP	Outdoor	.041 max	.271
	M57623	ScTP	Outdoor	.041 max	.460
	M58577	ScTP	Outdoor	.043 max	.305
	M58772	UTP	Ind/Out	.043 max	.271
MegaLAN Cat 5E	M57561	UTP	Outdoor	.041 max	.251
	M57562	ScTP	Outdoor	.041 max	.380
	M58463	ScTP	Outdoor	.043 max	.276
	M58762	UTP	Ind/Out	.041 max	.251
Cat 5	M57041	UTP	Outdoor	.039 max	.246
	M57042	ScTP	Outdoor	.039 max	.380

The "LT" and "HT" part numbers cover a multitude of MXXXXX part numbers by color. Please refer to the cable type to match the product you may be using.