

## GT16G Series

# Connector for Automotive Antenna Supporting 6GHz



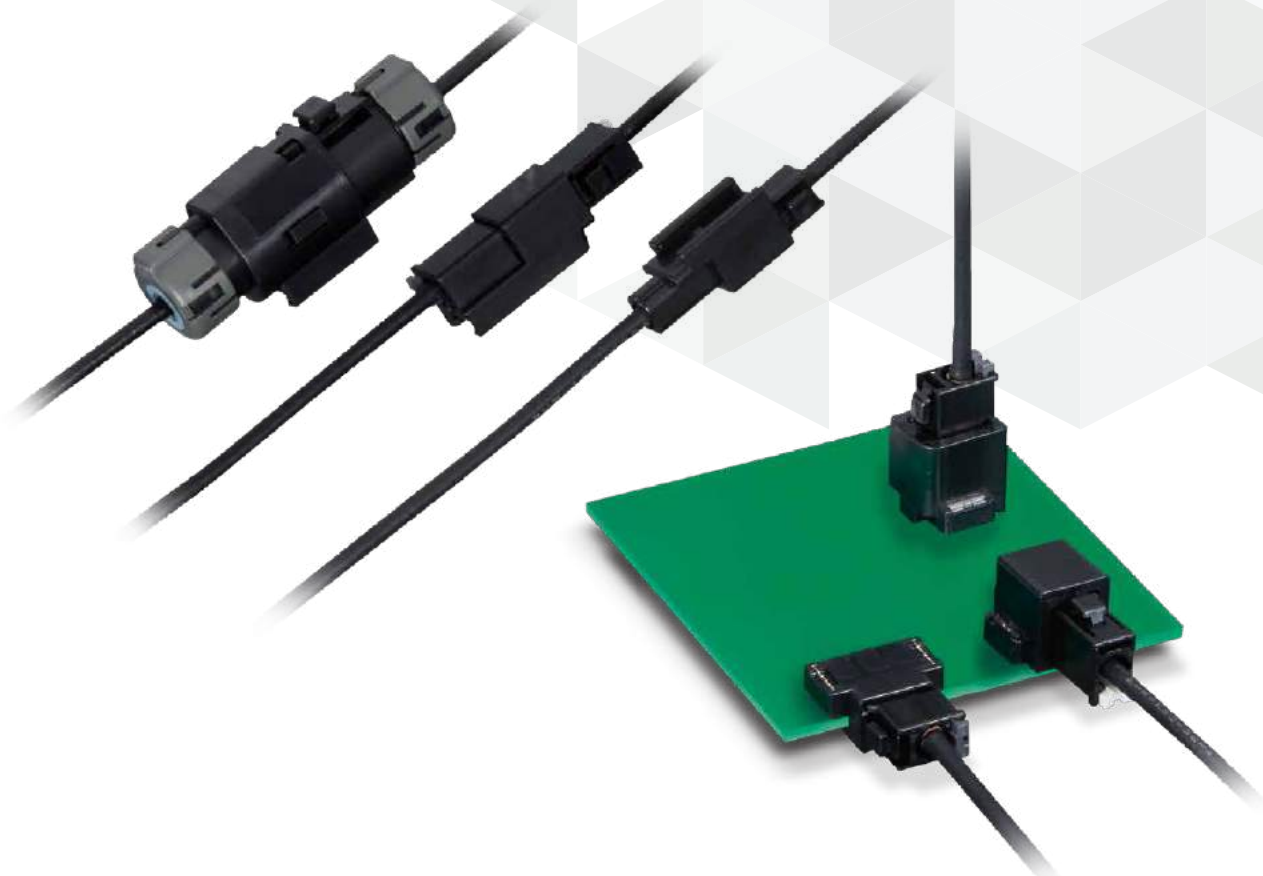
6 GHz



Wide Variation



Waterproof



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## Features

### 1. Superior High Frequency Performance

V.S.W.R. is 1.5 or less at 0 to 6GHz.

### 2. Meets stringent testing standards for a wide range of automotive applications.

### 3. Robust lock design provides a clear tactile click

Lock strength : 98N Min.

### 4. Wide Product Variation

## Applications

Automotive WiFi/Bluetooth, V2X, DSRC, etc.

## Product Specifications

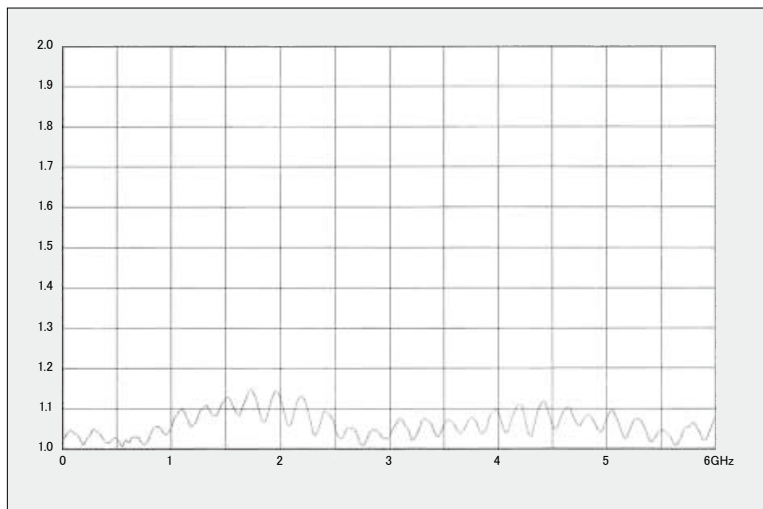
Rated Current	1 A	Operating Temperature (Note)	-40 to +105°C
Rated Voltage	250V AC		

Item	Specifications	Conditions
Contact Resistance	Center : 30m $\Omega$ Max. Outer : 60m $\Omega$ Max.	Measured at 1A DC
Insulation Resistance	100M $\Omega$ Min.	Measured at 500V DC
Withstanding Voltage	No insulation breakdown	650V AC for 1 min.
Mating Durability	Contact Resistance : Center : 60m $\Omega$ Max. Outer : 120m $\Omega$ Max.	30 times insertion and extraction

Note : Includes temperature rise due to current flow.

## High Frequency Characteristics (V.S.W.R.)

### TEST DATA (Using 1.5D-2W cable)



Note : Typical data using fully assembled and connected GT16G-1P-H and the GT16G-1S-HU.

## Mating Combinations

Plug		Receptacle, In-line Jack	
Without Retainer	GT16GM-1S-ASSY	Top-mount / SMT	GT16GMP-1P-H(55)
		Mid-mount / SMT	GT16GM-1P-H(55)
		In-line	GT16GM-1P-ASSY
		In-line / Bracket type	GT16GMN-1PP-ASSY
With Retainer	GT16G-1S-ASSY GT16GT-1S-ASSY	Top-mount / SMT	GT16GD-1P-H(55) GT16GT-1P-H(55)
		Top-mount / SMT+THR	GT16GH-1P-H
		Mid-mount / SMT+THR	GT16GL-1P-H(55)D GT16GRL-1P-H(55)
		Straight / THR	GT16GH-1P-DSA
		In-line / Bracket type	GT16GT-1PP-ASSY
Waterproof	GT16GW-1S-ASSY	Waterproof / In-line	GT16GW-1P-ASSY

THR : Through Hole Reflow

## Plug (Without Retainer)

The product consists of six parts.

(Housing, Insulation Case, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

### GT16GM-1S-ASSY



#### ● Housing, Insulation Case

Part	Part No.	HRS No.	Material	Color	Purchase Unit
Housing	GT16GM-1S-HU	CL0766-0033-9-00	PBT	Black	100pcs per bag
Insulation Case	GT16G-SC	CL0766-0023-5-00		Natural	1,000pcs per bag

Note : Use two insulation cases per cable assembly.

#### ● Center Terminal, Outer Terminal

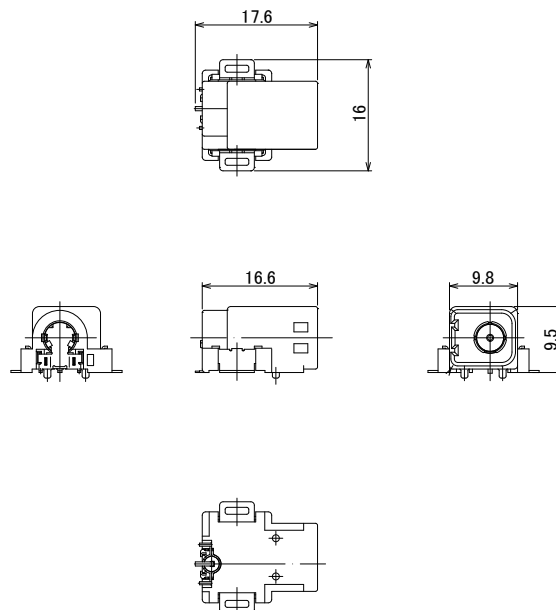
Part	Part No.	HRS No.	Material / Finish	Applicable Cable	Purchase Unit
Center Terminal	GT16G-2428SCF	CL0766-0022-2-00	Phosphor Bronze / Tin Plating	24 to 28 AWG	10,000pcs per reel
Outer Terminal	GT16GM-/1.6-2.9SC	CL0766-0025-0-00		1.5D-2W equivalent	100pcs per bag

#### ● Terminal Ferrule, Outer Ferrule

Part	Part No.	HRS No.	Material / Finish	Purchase Unit
Terminal Ferrule	GT16G-FR	CL0766-0028-9-00	Phosphor Bronze / Tin Plating	1,000pcs per bag
Outer Ferrule	GT16G-1.5DHQS	CL0766-0027-6-00		500pcs per bag

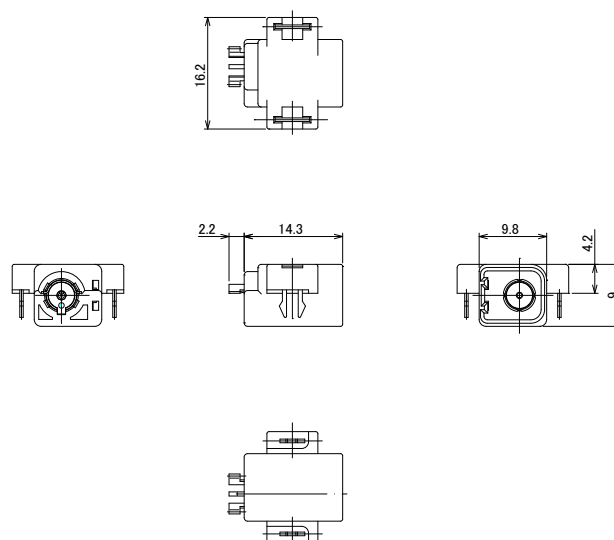
## Receptacle

### Top-mount / SMT



Part No.	HRS No.	Material / Finish or Color	Purchase Unit
GT16GMP-1P-H(55)	CL0766-0052-3-55	Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulators L, R : PPS / Natural Shield Plate : Phosphor Bronze / Tin Plating Retention Tab : Brass / Tin Plating	200pcs per reel

### Mid-mount / SMT



Part No.	HRS No.	Material / Finish or Color	Purchase Unit
GT16GM-1P-H(55)	CL0766-0032-6-55	Housing : PBT / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulator : PBT / Natural Retention Tab : Phosphor Bronze / Tin Plating	60pcs per tray

Note : The retention tabs are soldered manually.

## In-line Jack (Without Retainer)

The product consists of six parts.

(Housing, Insulation Case, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

### GT16GM-1P-ASSY



### GT16GMN-1PP-ASSY



#### ● Housing, Insulation Case

Part	Part No.	HRS No.	Material	Color	Purchase Unit
Housing	GT16GM-1P-HU	CL0766-0050-8-00	PBT	Black	100pcs per bag
	GT16GMN-1PP-HU	CL0766-0051-0-00		Natural	
Insulation Case	GT16G-PC	CL0766-0047-3-00			

Note : Use two insulation cases per cable assembly.

#### ● Center Terminal, Outer Terminal

Part	Part No.	HRS No.	Material / Finish	Applicable Cable	Purchase Unit
Center Terminal	GT16G-2428PCF	CL0766-0046-0-00	Brass / Tin Plating	24 to 28 AWG	10,000pcs per reel
Outer Terminal	GT16G-/1.6-2.9PC	CL0766-0048-6-00	Phosphor Bronze / Tin Plating	1.5D-2W equivalent	100pcs per bag

#### ● Terminal Ferrule, Outer Ferrule

Part	Part No.	HRS No.	Material / Finish	Purchase Unit
Terminal Ferrule	GT16G-FR	CL0766-0028-9-00	Phosphor Bronze / Tin Plating	1,000pcs per bag
Outer Ferrule	GT16G-1.5DHQS	CL0766-0027-6-00		500pcs per bag

## Plug (With Retainer)

The product consists of seven parts.

(Housing, Insulation Case, Retainer, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

### GT16G-1S-ASSY



#### ● Housing, Insulation Case, Retainer

Part	Part No.	HRS No.	Material	Color	Purchase Unit
Housing	GT16G-1S-HU	CL0766-0026-3-00	PBT	Light Gray	100pcs per bag
	GT16G-1S-HU(24)	CL0766-0026-3-24		Black	
Insulation Case	GT16G-SC	CL0766-0023-5-00		Natural	1,000pcs per bag
Retainer	GT16C-1P/S-R	CL0766-0011-6-00		Dark Gray	100pcs per bag

Note : Use two insulation cases per cable assembly.

#### ● Center Terminal, Outer Terminal

Part	Part No.	HRS No.	Material / Finish	Applicable Cable	Purchase Unit
Center Terminal	GT16G-2428SCF	CL0766-0022-2-00	Phosphor Bronze / Tin Plating	24 to 28 AWG	10,000pcs per reel
Outer Terminal	GT16G-/1.6-2.9SC	CL0766-0024-8-00		1.5D-2W equivalent	100pcs per bag

#### ● Terminal Ferrule, Outer Ferrule

Part	Part No.	HRS No.	Material / Finish	Purchase Unit
Terminal Ferrule	GT16G-FR	CL0766-0028-9-00	Phosphor Bronze / Tin Plating	1,000pcs per bag
Outer Ferrule	GT16G-1.5DHQS	CL0766-0027-6-00		500pcs per bag

## Plug (With Retainer)

The product consists of seven parts.

(Housing, Insulation Case, Retainer, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

### GT16GT-1S-ASSY



#### ● Housing, Insulation Case, Retainer

Part	Part No.	HRS No.	Material	Color	Purchase Unit
Housing	GT16GT-1S-HU	CL0766-0098-4-00	PBT	Black	100pcs per bag
Insulation Case	GT16G-SC	CL0766-0023-5-00		Natural	1,000pcs per bag
Retainer	GT16GT-1S-R	CL0766-0099-7-00		Natural	100pcs per bag

Note : Use two insulation cases per cable assembly.

#### ● Center Terminal, Outer Terminal

Part	Part No.	HRS No.	Material / Finish	Applicable Cable	Purchase Unit
Center Terminal	GT16G-2428SCF	CL0766-0022-2-00	Phosphor Bronze / Tin Plating	24 to 28 AWG	10,000pcs per reel
Outer Terminal	GT16G-/1.6-2.9SC	CL0766-0024-8-00		1.5D-2W equivalent	100pcs per bag

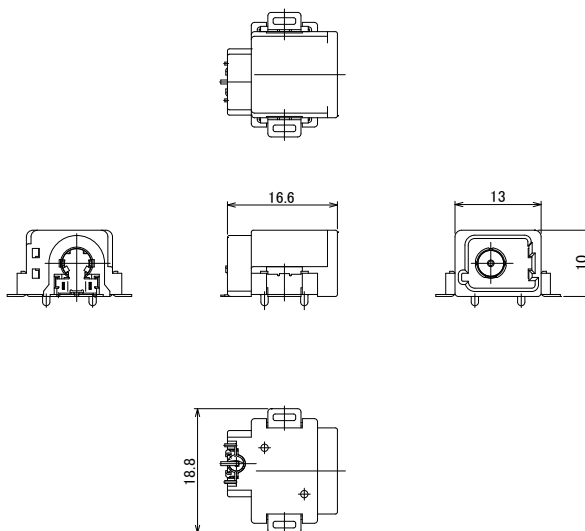
#### ● Terminal Ferrule, Outer Ferrule

Part	Part No.	HRS No.	Material / Finish	Purchase Unit
Terminal Ferrule	GT16G-FR	CL0766-0028-9-00	Phosphor Bronze / Tin Plating	1,000pcs per bag
Outer Ferrule	GT16G-1.5DHQS	CL0766-0027-6-00		500pcs per bag



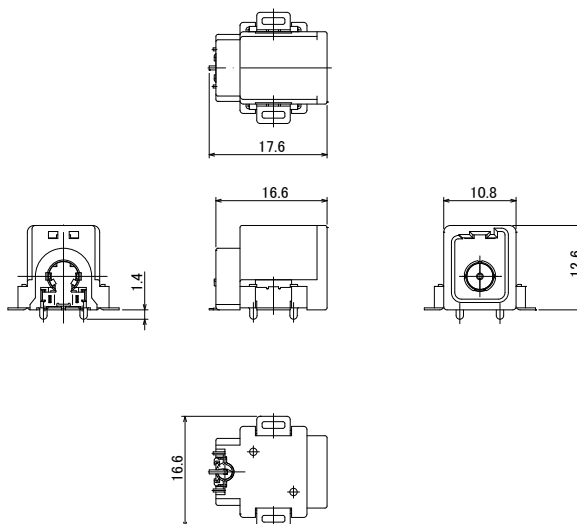
## Receptacle

### Top-mount / SMT



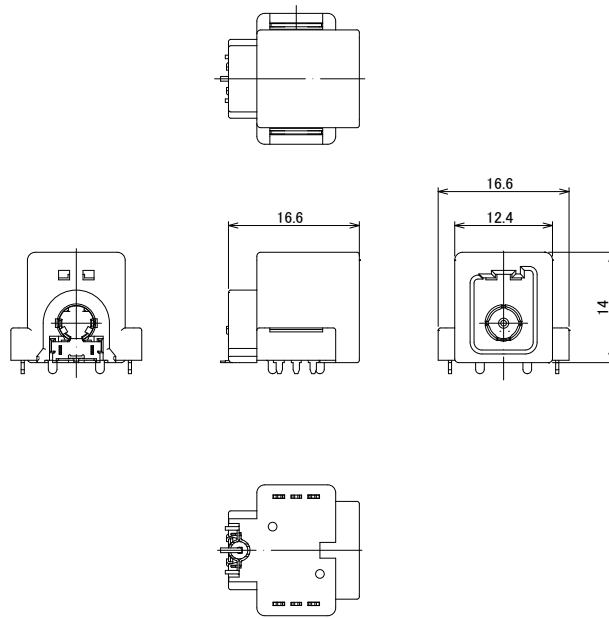
Part No.	HRS No.	Material / Finish or Color	Purchase Unit
GT16GD-1P-H(55)	CL0766-0044-5-55	Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulators L, R : PPS / Natural Shield Plate : Phosphor Bronze / Tin Plating Retention Tab : Brass / Tin Plating	200pcs per reel

### Top-mount / SMT



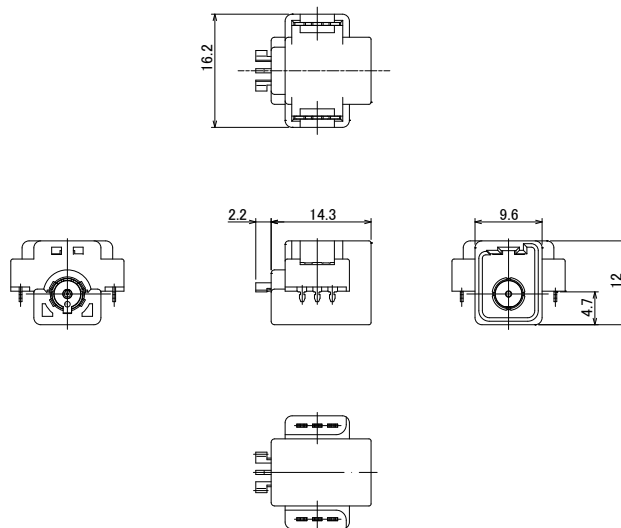
Part No.	HRS No.	Material / Finish or Color	Purchase Unit
GT16GT-1P-H(55)	CL0766-0104-5-55	Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulators L, R : PPS / Natural Shield Plate : Phosphor Bronze / Tin Plating Retention Tab : Brass / Tin Plating	200pcs per reel

### Top-mount / SMT+THR (Through Hole Reflow)



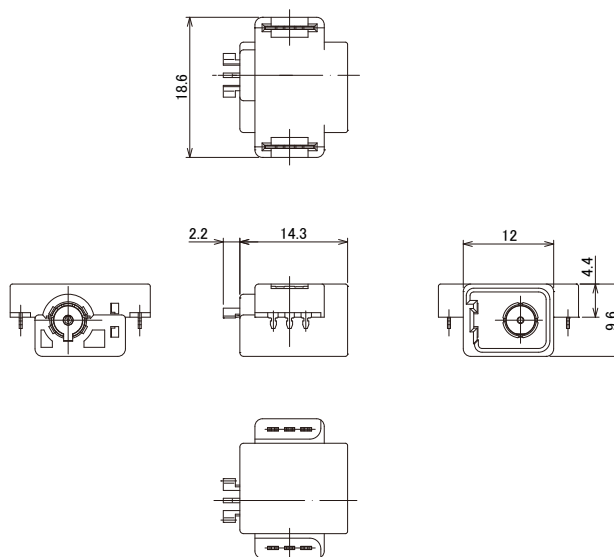
Part No.	HRS No.	Material / Finish or Color	Purchase Unit
GT16GH-1P-H	CL0766-0118-0-00	Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulators L, R : PPS / Natural Shield Plate : Phosphor Bronze / Tin Plating Retention Tab : Brass / Tin Plating	200pcs per reel

### Mid-mount / SMT+THR (Through Hole Reflow)



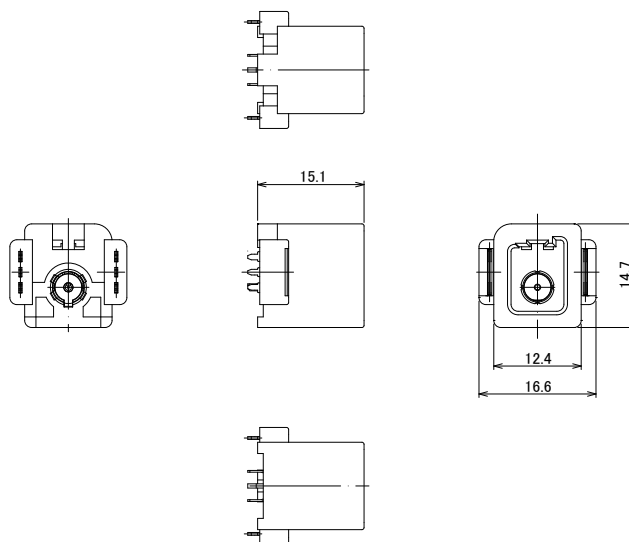
Part No.	HRS No.	Material / Finish or Color	Purchase Unit
GT16GL-1P-H(55)D	CL0766-0103-2-55	Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulator : PPS / Natural Retention Tab : Brass / Tin Plating	200pcs per reel

### Mid-mount / SMT+THR (Through Hole Reflow)



Part No.	HRS No.	Material / Finish or Color	Purchase Unit
GT16GRL-1P-H(55)	CL0766-0101-7-55	Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulator : PPS / Natural Retention Tab : Brass / Tin Plating	200pcs per reel

### Straight / THR (Through Hole Reflow)



Part No.	HRS No.	Material / Finish or Color	Purchase Unit
GT16GH-1P-DSA	CL0766-0112-3-00	Housing : PPS / Black Center Terminal : Phosphor Bronze / Tin Plating Outer Terminal : Phosphor Bronze / Tin Plating Insulator : PPS / Natural Retention Tab : Brass / Tin Plating	60pcs per tray

## In-line Jack (With Retainer)

The product consists of seven parts.

(Housing, Insulation Case, Retainer, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

### GT16GT-1PP-ASSY



#### ● Housing, Insulation Case, Retainer

Part	Part No.	HRS No.	Material	Color	Purchase Unit
Housing	GT16GT-1PP-HU	CL0766-0049-9-00	PBT	Black	100pcs per bag
Insulation Case	GT16G-PC	CL0766-0047-3-00		Natural	
Retainer	GT16C-1P/S-R	CL0766-0011-6-00		Dark Gray	

Note : Use two insulation cases per cable assembly.

#### ● Center Terminal, Outer Terminal

Part	Part No.	HRS No.	Material / Finish	Applicable Cable	Purchase Unit
Center Terminal	GT16G-2428PCF	CL0766-0046-0-00	Brass / Tin Plating	24 to 28 AWG	10,000pcs per reel
Outer Terminal	GT16G-/1.6-2.9PC	CL0766-0048-6-00	Phosphor Bronze / Tin Plating	1.5D-2W equivalent	100pcs per bag

#### ● Terminal Ferrule, Outer Ferrule

Part	Part No.	HRS No.	Material / Finish	Purchase Unit
Terminal Ferrule	GT16G-FR	CL0766-0028-9-00	Phosphor Bronze / Tin Plating	1,000pcs per bag
Outer Ferrule	GT16G-1.5DHQS	CL0766-0027-6-00		500pcs per bag

## Waterproof Plug

The product consists of seven parts.

(Housing, Insulation Case, Retainer, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

### GT16GW-1S-ASSY



#### ● Housing, Insulation Case, Retainer

Part	Part No.	HRS No.	Material	Color	Purchase Unit
Housing	GT16GW-1S-HU	CL0766-0076-1-00	PBT / Silicone Rubber	Black / White	100pcs per bag
Insulation Case	GT16G-SC	CL0766-0023-5-00	PBT	Natural	1,000pcs per bag
Retainer	GT5W-1P/S-R	CL0755-0028-5-00	PBT / Silicone Rubber	Dark Gray / Light Blue	100pcs per bag

Note : Use two insulation cases per cable assembly.

#### ● Center Terminal, Outer Terminal

Part	Part No.	HRS No.	Material / Finish	Applicable Cable	Purchase Unit
Center Terminal	GT16G-2428SCF	CL0766-0022-2-00	Phosphor Bronze / Tin Plating	24 to 28 AWG	10,000pcs per reel
Outer Terminal	GT16G-/1.6-2.9SC	CL0766-0024-8-00		1.5D-2W equivalent	100pcs per bag

#### ● Terminal Ferrule, Outer Ferrule

Part	Part No.	HRS No.	Material / Finish	Purchase Unit
Terminal Ferrule	GT16G-FR	CL0766-0028-9-00	Phosphor Bronze / Tin Plating	1,000pcs per bag
Outer Ferrule	GT16G-1.5DHQS	CL0766-0027-6-00		500pcs per bag

## Waterproof In-line Jack

The product consists of seven parts.

(Housing, Insulation Case, Retainer, Center Terminal, Outer Terminal, Terminal Ferrule and Outer Ferrule)

### GT16GW-1P-ASSY



#### ● Housing, Insulation Case, Retainer

Part	Part No.	HRS No.	Material	Color	Purchase Unit
Housing	GT16GW-1P-HU	CL0766-0077-4-00	PBT	Black	100pcs per bag
Insulation Case	GT16G-PC	CL0766-0047-3-00		Natural	
Retainer	GT5W-1P/S-R	CL0755-0028-5-00	PBT / Silicone Rubber	Dark Gray / Light Blue	

Note : Use two insulation cases per cable assembly.

#### ● Center Terminal, Outer Terminal

Part	Part No.	HRS No.	Material / Finish	Applicable Cable	Purchase Unit
Center Terminal	GT16G-2428PCF	CL0766-0046-0-00	Brass / Tin Plating	24 to 28 AWG	10,000pcs per reel
Outer Terminal	GT16G-/1.6-2.9PC	CL0766-0048-6-00	Phosphor Bronze / Tin Plating	1.5D-2W equivalent	100pcs per bag

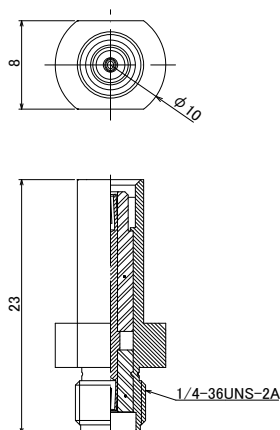
#### ● Terminal Ferrule, Outer Ferrule

Part	Part No.	HRS No.	Material / Finish	Purchase Unit
Terminal Ferrule	GT16G-FR	CL0766-0028-9-00	Phosphor Bronze / Tin Plating	1,000pcs per bag
Outer Ferrule	GT16G-1.5DHQS	CL0766-0027-6-00		500pcs per bag

## Conversion Adapter

### SMA Conversion Adapter

(Mated Portion - SMA Side : Jack, GT16G Side : Plug)

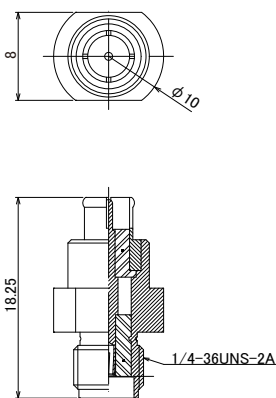


Part No.	HRS No.	Purchase Unit
GT16GS-HRMJ	CL0766-0031-3-00	20pcs per bag

Note : The adapter does not have a lock so it can only be used for performance measurements.

### SMA Conversion Adapter

(Mated Portion - SMA Side : Jack, GT16G Side : Jack)



Part No.	HRS No.	Purchase Unit
GT16GP-HRMJ	CL0766-0030-0-00	20pcs per bag

Note : The adapter does not have a lock so it can only be used for performance measurements.

## Crimping Tools

Please ask your Hirose Electric representative for a user manual.

Applicable Connector		GT16GM-1S-ASSY GT16G-1S-ASSY GT16GT-1S-ASSY GT16GW-1S-ASSY	GT16GM-1P-ASSY GT16GMN-1PP-ASSY GT16GT-1PP-ASSY GT16GW-1P-ASSY
Process 1	Stripping the cable jacket	Schleuniger MP257, etc.	Schleuniger MP257, etc.
Process 2	Center terminal crimping	Automatic Crimping Machine CM-105C + Applicator AP105-GT16G-2428S	Automatic Crimping Machine CM-105C + Applicator AP105-GT16G-2428P
Process 3	Cable forming	Shield Forming Tool GT16G-1.5DHQS/CF-MD	Shield Forming Tool GT16G-1.5DHQS/CF-MD
Process 4	Inserting the outer ferrule	Outer Ferrule Insertion Tool GT16G-1.5DHQS/PR-MD	Outer Ferrule Insertion Tool GT16G-1.5DHQS/PR-MD
Process 5	Inserting the terminal ferrule	Terminal Ferrule Insertion Tool GT16G-FR/PR-MD	Terminal Ferrule Insertion Tool GT16G-FR/PR-MD
Process 6	Attaching the insulation case	Manual work	Manual work
Process 7	Inserting the outer terminal	Insulation Case Pushing Tool GT16G-SC/PR-MD	—
Process 8	Caulking the outer terminal	Hand Press HOS-7 + Outer Terminal Caulking Tool GT16G-1.6-2.9S/CK-MP	Hand Press HOS-7 + Outer Terminal Caulking Tool GT16G-1.6-2.9P/CK-MP
Process 9	Mounting the housing (retainer)	Manual work	Manual work
Process 10	Inspection	Inspection of high frequency characteristics Inspection of continuity/withstanding voltage Visual inspection	Inspection of high frequency characteristics Inspection of continuity/withstanding voltage Visual inspection

Note 1 : Different contact crimp heights are available for different cable types.

Please contact your Hirose Electric account representative for details.

Other cables will require different crimp height settings. Please note that this may take a few days.

Note 2 : When purchasing HRS equipment, please contact your Hirose Electric account representative to confirm that the cable that you plan to use for the applicable terminal has been evaluated.

Note 3 : The applicators and tools listed here may not be applicable depending on the specifications of the cable you use.



## While Taking into Consideration

Specifications mentioned in this catalog are reference values.

When considering to order or use this product, please review the Drawing and Product Specifications sheets.

Use an appropriate cable when using the connector in combination with cables.

If considering usage of a non-specified cable, please contact your sales representative.

If assembly process is done by jigs & tools which are not identified by Hirose, the warranty of the product may be affected.

If considering usage for below mentioned applications, please contact your sales representative.

In cases where the application will demand a high level of reliability, such as automotive, medical instruments, public infrastructure, aerospace/ defense etc. Hirose must review before assurance of reliability can be given.

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