

Broadcast and Entertainment Products

Video Patching Systems

2nd Edition



Tyco Electronics and ADC are now **TE Connectivity**



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Video Patching Systems

ProPatch® Miniature (PPM) Series

Super High-Density Coax Patching System

The ProPatch® Miniature (PPM) Series is an all new Super High-Density Coax (SHDC) patching system designed for High Definition (HD), SDI, AES audio, 5.1 and 7.1 audio applications where coax medium is preferred but space is at a premium. The system is available in both 1 and 1.5 rack unit configurations. The 1 rack unit panel features a patent-pending pullout designation strip that dramatically increases space for text, and a high-density 2x48 circuit configuration of ports. The 1.5 rack unit panel features 4x48 ports.



The SHDC jack features a unique patent-pending switchable termination system that allows the user to select terminating and non-terminating 75 Ω functions on each circuit pair. The normal-through system is also available in a straight-through configuration for tie-line panels and applications where normals are not required. The SHDC high-performance normalling and straight-through LCC jacks are rated to SMPTE 424M HD standard. The SHDC AES jacks are rated for AES digital audio and analog video transmission. Both versions feature modular screwless mounting, circuit identification icons on the rear of the jack, 10,000 insertion/withdrawal cycles and are fully qualified to MIL-STD 202 for the ultimate in durability.

The system features two options. ADC's patented push-pull LCC connector technology on the backplane, or standard 1.0/2.3 connectors and ADC's patented LCC and LCP connectors terminate the same as a BNC using standard tooling.

1 Rack Unit Super High-Density Coax Patch Panel



Features

- High-density: 48 total jacks (2x48)
- Large designation strips: .440" wide designation on top and bottom; plus a 1" slide out designation
- Lightweight: Less than 1 Kg (2 lbs) total panel weight

1.5 Rack Unit Super High-Density Coax Patch Panel



Features

- High-density: 48 total jacks (2x48)
- Large designation strips: .680" designation on top and bottom
- Lightweight: Less than 1.4 Kg (3 lbs) total panel weight

1.5 Rack Unit Super High-Density Coax Patch Panel

Features

- High-density: 96 total jacks (4x48)
- Large designation strips: .440" wide middle designation, .289" on top and bottom
- Lightweight: Less than 1.8 Kg (3.8 lbs) total panel weight





Video Patching Systems

ProPatch® Miniature (PPM) Series

Specifications

ELECTRICAL

Characteristic impedance:	75 Ω
Voltage rating:	600 Volts RMS
Bandwidth	
HD LCC:	Up to 3 GHz
HD 1.0/2.3:	Up to 3 GHz
Straight-through LCC:	Up to 3 GHz
Straight-through 1.0/2.3:	Up to 3 GHz
AES:	Up to 500 MHz
Contact resistance:	.030 Ω max change post environmental
Insulation resistance:	200 M Ω min change

MECHANICAL

Mechanical durability:	10,000 cycles min (Front port: LCP) 500 cycles min (Back port: LCC)
Center contact retention:	6 lbs min
SHDC jack panel retention:	20 lbs min
Patch cord cable bend and twist:	500 cycles min

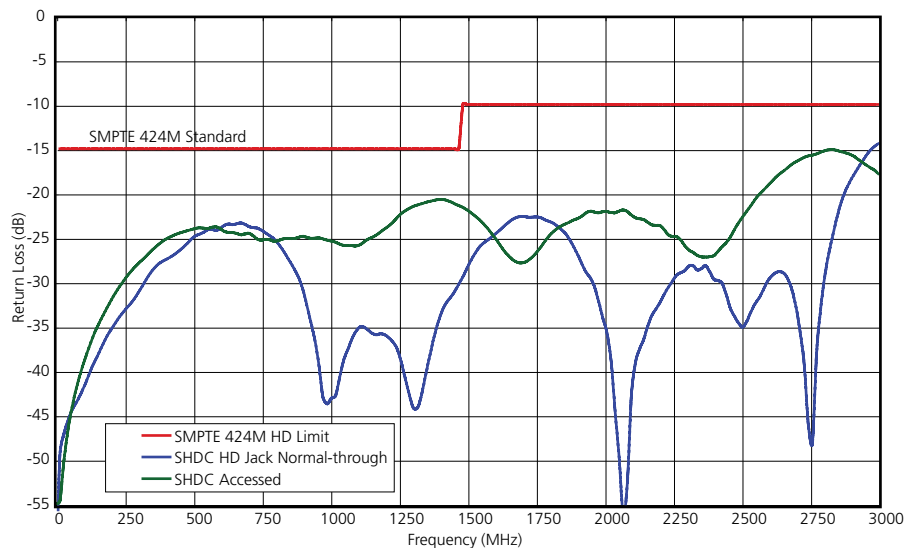
ENVIRONMENTAL

Thermal shock:	-40° C to 65° C, operating; -55° C to 85° C, non-operating
Moisture resistance:	0% to 95%; MIL-STD-202 Method 106
Corrosion (salt spray):	MIL-STD-202 Method 101, test condition B
Flammability:	UL 94-VO rated (center conductor insulator)
Vibration:	MIL-STD-202 Method 201
Solvent resistance:	MIL-STD-202 Method 215

FINISH

Sheet metal panel:	.060 CRS with protective black finish
Jack plastic housing:	30% Glass Filled Valox
Nickel coax housings:	Tarnish-resistant electroless nickel plating
Springs:	Beryllium copper with 50 millionths inch gold plating
Center conductors:	50 millionths inch gold plating

Gated Return Loss
High-Performance SHDC LCC Jack



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Ordering Information

Description					Catalog Number
ProPatch® Miniature (PPM) Panels					
2x48	1 RU	LCC	Normalling	AES and Analog Video	PPM1248-LCC-BK
				High-Performance, HD	PPM1248-LCCHP-BK
			Non-Normalling	High-Performance	PPM1248-LCCNN-BK
		1.0/2.3 jack	Normalling	AES and Analog Video	PPM1248-1023-BK
				High-Performance, HD	PPM1248-1023HP-BK
			Non-Normalling	High-Performance	PPM1248-1023NN-BK
	1.5 RU	LCC	Normalling	AES and Analog Video	PPM15248-LCC-BK
				High-Performance	PPM15248-LCCHP-BK
			Non-Normalling	High-Performance	PPM15248-LCCNN-BK
		1.0/2.3 jack	Normalling	AES and Analog Video	PPM15248-1023-BK
				High-Performance	PPM15248-1023HP-BK
			Non-Normalling	High-Performance	PPM15248-1023NN-BK
4x48	1.5 RU	LCC	Normalling	AES and Analog Video	PPM15448-LCC-BK
				High-Performance	PPM15448-LCCHP-BK
		Non-Normalling	High-Performance	PPM15448-LCCNN-BK	
			1.0/2.3 jack	Normalling	AES and Analog Video
	High-Performance	PPM15448-1023HP-BK			
	Non-Normalling	High-Performance		PPM15448-1023NN-BK	

SHDC Jack

Features

- Switchable between terminating and non-terminating normalled-through
- Non-normalled jack offered in same jack housing, looping plug available for circuit patching

	Normalling AES	Straight-Through HD	Normalling HD
LCC	SHDC-LCC 	SHDC-LCC-NN 	SHDC-LCC-HP 
	SHDC-1023 	SHDC-1023-NN 	SHDC-1023-HP 



Video Patching Systems

ProPatch® Miniature (PPM) Series

SHDC Jacks for PPM Panels

ELECTRICAL

Characteristic impedance:	75 Ω
Voltage rating:	600 Volts RMS
Bandwidth	
HD LCC:	Up to 3 GHz
HD 1.0/2.3:	Up to 3 GHz
Straight-through LCC:	Up to 3 GHz
Straight-through 1.0/2.3:	Up to 3 GHz
AES:	Up to 500 MHz
Contact resistance:	.030 Ω max change post environmental
Insulation resistance:	200 M Ω min change

MECHANICAL

Mechanical durability:	10,000 cycles min (Front port: LCP) 500 cycles min (Back port: LCC)
Center contact retention:	6 lbs min
SHDC jack panel retention:	20 lbs min
Patch cord cable bend and twist:	500 cycles min

ENVIRONMENTAL

Thermal shock:	-40° C to 65° C, operating; -55° C to 85° C, non-operating
Moisture resistance:	0% to 95%; MIL-STD-202 Method 106
Corrosion (salt spray):	MIL-STD-202 Method 101, Test Condition B
Flammability:	UL 94-VO rated (center conductor insulator)
Vibration:	MIL-STD-202 Method 201
Solvent resistance:	MIL-STD-202 Method 215

FINISH

Sheet metal panel:	.060 CRS with protective black finish
Jack plastic housing:	30% Glass Filled Valox
Nickel coax housings:	Tarnish-resistant electroless nickel plating
Springs:	Beryllium copper with 50 millionths inch gold plating
Center conductors:	50 millionths inch gold plating

Ordering Information

Description		Catalog Number	
Super High-Density Coax Jacks			
LCC	Normalling	AES and Analog Video	SHDC-LCC
		High-Performance, HD	SHDC-LCC-HP
	Straight-Through	High-Performance, HD	SHDC-LCC-NN
1.0/2.3 Connectors	Normalling	AES and Analog Video	SHDC-1023
		High-Performance	SHDC-1023-HP
	Straight-Through	High-Performance	SHDC-1023-NN
LCP High-Performance Patch Cords			
2 feet		BK2VXM-LCP-LCP	
3 feet		BK3VXM-LCP-LCP	
4 feet		BK4VXM-LCP-LCP	
6 feet		BK6VXM-LCP-LCP	
Looping plug; LCP .48" Centers		LP-SHDC-480	
Description	Catalog Number		
	Cable Type (or equivalent to)		
	1505, 9259 9100, VPM2000	1855 VDM230 VDM250	0.6/2.8 Image360 SDV-25
LCC Connectors			
1 each	LCC-1-BE	LCC-13-BE	LCC-26-BE
Bulk (100 pack)	LCC-1B-BE	LCC-13B-BE	LCC-26B-BE
Crimp Tools			
Features Ergonomic Handle for ADC Die Sets		WT-2	
Features Long Ergonomic Handle for ADC Die Sets		WT-3	
Crimp Die Sets	WD-1	WD-2	WD-3
	WD-2		WD-4
	WD-3		
	WD-5		
Manual Stripper Tool Includes One Stripper Replacement Cassette		STC-12B	STC-13B
Manual Stripper Replacement Cassette		CCS-BLK	
Insertion/Withdrawal Tool		LCA-400004	
Replacement Tips For Insertion/Withdrawal Tool (12-Pack)		LCA-400005-12	
LCC Tester		LCA-414001	



LCP Patch Cords



LCP Looping Plug



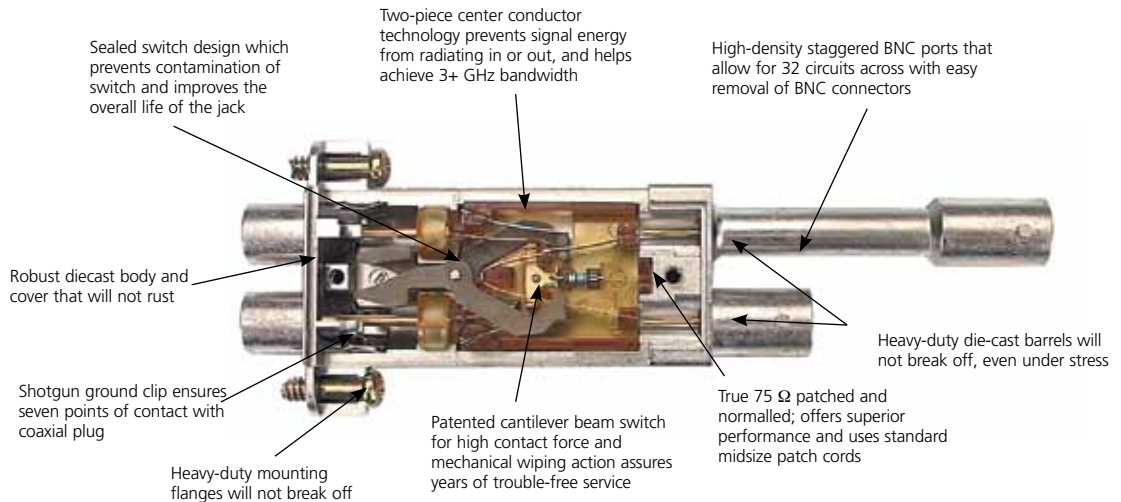
Insertion/Withdrawal Tool



LCC Connector

WECO HD Midsize Video Jacks

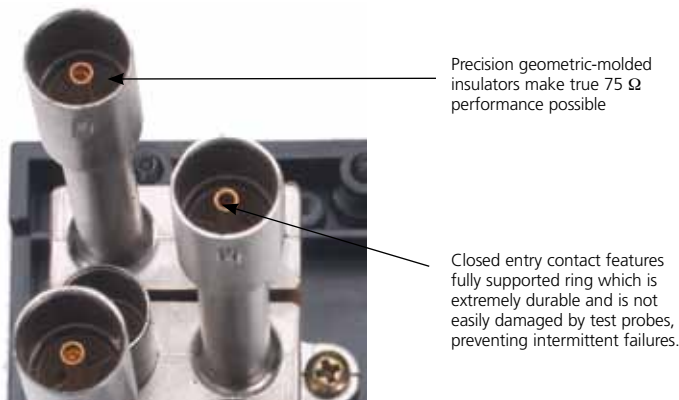
Midsize video jacks have several advantages over standard size jacks in performance and size. All standard size video jacks observing WECO standards are, by definition, not 75 Ω in the patched state (with the exception of ADC's SVJ-2 standard size Super Video Jack). The physical relationship of the center conductor diameter and the coaxial port diameter creates an impedance violation that causes the video impedance to drop to 58 Ω in the patched state. In midsize video jacks, the physical relationship has been optimized, providing a constant impedance of 75 Ω in either the normalled-through mode or the patched mode. This impedance advantage can make a considerable difference in the elimination of bit errors in digital signals especially if the circuit is routed through several patches. The midsize offers 33 percent higher density than standard size for 2x32 configurations, which match typical router decades.



MVJ-3 Midsize Video Jack Interior View

Outstanding Performance Features

ADC video jacks feature precision geometric-molded insulators for true 75 Ω performance. Closed-entry center contacts are designed to resist damage from damaged plugs or test probes.



WECO HD Midsize Video Jack MVJ-3

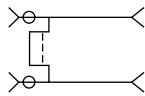
The MVJ-3 midsize to BNC self-normalling video jack is performance matched for data rates up to and including HDTV in the full uncompressed 1.485 and 3 Gbps rates. This premium jack includes a host of outstanding features highlighted in the interior view shown on the previous page.

Features

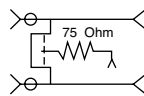
- 3.0+ GHz bandwidth
- Sealed switch
- 75 Ω performance
- RFI shielding
- 2x32 mounting in one rack space
- Unique captive mounting screws
- Meets MIL-STD-202F for environmental and mechanical reliability



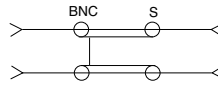
MVJ-3 Terminated
MVJ-3T Non-terminated
MVJ-3NN Non-normalled,
 non-terminated



MVJ-3



MVJ-3T



MVJ-3NN

HD Midsize Video Jack

WECO HD Midsize Straight-Through Video Jacks

For applications requiring independent ground such as tie line panels, the new straight-through CJ3014N and CJ4014N are the logical choice. These jacks have a rated bandwidth up to 2.4 GHz for analog, serial digital, and HDTV video applications. For applications requiring self-terminating jacks, the CJ3014N-75 and the CJ4014N-75 are available.

The short body CJ3014N/3014N-75 and long body CJ4014N/4014N-75 are designed to be mounted in 32-across configurations. The jacks slide into a patented insulated holder with a dovetail joint, which provides outstanding durability and electronic isolation from adjacent jacks. The short and long bodies allow a staggered mounting pattern to provide access to the BNC connectors. A BNC insertion tool such as the BT2000 is recommended for BNC installation.



CJ3014N-75/CJ4014N-75 Terminated

A patented "dovetail" mounting device provides electrical isolation and outstanding durability as compared to tab-and-barrel mounting systems.



CJ3014N/CJ4014N Non-terminated

Jacks shown partially assembled to reveal the dovetail joint.

MVJ-3

WECO HD Midsize Video Jack Specifications

The MVJ-3 Family is rated to handle digital video data rates up to and including uncompressed HDTV SMPTE 292M 1.485 Gbps and SMPTE 424M 3 Gbps.

ELECTRICAL

Rated bandwidth:	1 MHz to 3 GHz
Return loss:	Better than -17 dB; 1 MHz to 3 GHz
Characteristic impedance:	75 Ω
Insertion loss:	0.3 dB Loss to 3 GHz
Center conductor Diameter:	0.048 (.12cm)
Contact resistance:	0.01 W maximum change
Termination resistor:	75 Ω, MVJ-3T only

MECHANICAL

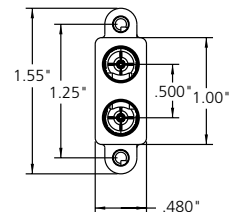
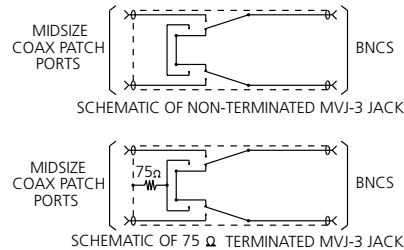
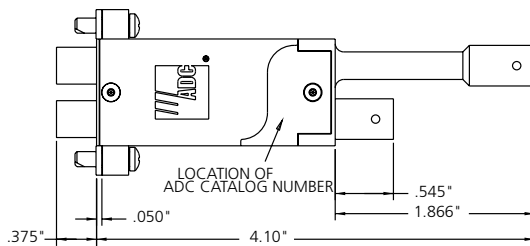
Mechanical shock:	Per MIL-STD-202, Method 213
Vibration:	Per MIL-STD-202, Method 201
Insertion force:	7 lbs (3.17 Kg) maximum
Withdrawal force:	1 lb (.452 Kg) minimum
Life cycles:	20,000

MATERIAL

Body and cover:	Zinc alloy per ASTM B86
Front and rear center conductors:	Beryllium copper per ASTM B196
Insulators:	Unreinforced polyetherimide resin rated UL94-VO for flammability
Switching springs:	Beryllium copper per ASTM B196

ENVIRONMENTAL

Operating temperature:	-40° C to 65° C
Storage temperature:	-40° C to 65° C
Thermal shock:	Per MIL-STD-202, Method 107
Operating humidity:	0% to 95%, non-condensing
Storage humidity:	0% to 95%, non-condensing
Salt spray:	Per MIL-STD-202, Method 101
Moisture resistance:	Per MIL-STD-202, Method 106
Dust resistance:	Per MIL-STD-202, Method 110



MVJ-3 Midsize Video Jack

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WECO HD Midsize Straight-Through Video Jack Specifications

The CJ midsize jacks are rated to handle digital video data rates up to and including uncompressed HDTV SMPTE 292 M 1.485 Gbps. They are also rated for L-Band and S-Band use.

ELECTRICAL

Characteristic impedance:	75 Ω nominal
Return loss:	> 15 dB; 300 Khz to 3 GHz
Contact resistance:	10 m Ω typical
Termination resistance (3014N-75/4014N-75):	75 Ω commercial, 1/8 watt 5%

MECHANICAL

Mechanical shock:	Per MIL-STD-202, Method 213
Vibration:	Per MIL-STD-202, Method 201
Insertion force:	7 lbs max
Withdrawal force:	1.5 lbs min

ENVIRONMENTAL

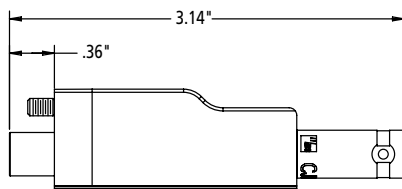
Operating temp:	-40° C to 65° C
Storage temp:	-55° C to 85° C
Thermal Shock:	Per MIL-STD-202, Method 107
Humidity:	0% to 95% non-condensing, operating and non-operating
Salt spray:	Per MIL-STD-202, Method 101
Moisture resistance:	Per MIL-STD-202, Method 106

MATERIAL

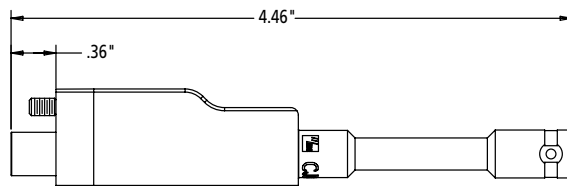
Jack sleeve and frame: per QQ-N-290	CDA 360 brass rod per ASTM B16 with electro-deposit nickel plating
Center conductors: per MIL-G-45204	Phosphor bronze per ASTM B139 with electro-deposited gold plating
Insulators:	TFE-Fluorocarbon per ASTM D1710

OTHER

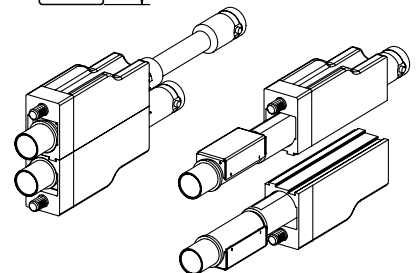
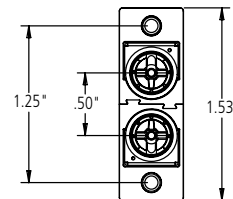
Interface dimensions:	Outside diameter of mating plugs must be .298" (.75 cm) with pin diameter of .048" (.12 cm)
Mounting details:	Jacks supplied with a 6-32 UNC-2A 5/16" Phillips head screws (zinc chromate plated)



CJ3014N and CJ3014N-75



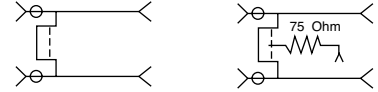
CJ4014N and CJ4014N-75



WECO HD Standard Size Super Video Jacks (SVJ)

The SVJ-2 standard size to BNC self-normalling Super Video Jack family features performance matched for data rates up to and including HDTV in the full uncompressed 1.485 and 3 Gbits/second rate. The SVJ-2 combines the unique features of:

- 2.4 GHz bandwidth for the demanding HD data rates
- Sealed switch prevents internal contamination
- True 75 Ω performance for a zero bit-error rate
- RFI shielding prevents ingress/egress
- 2x24 mounting in one rack space
- Unique captive mounting screws

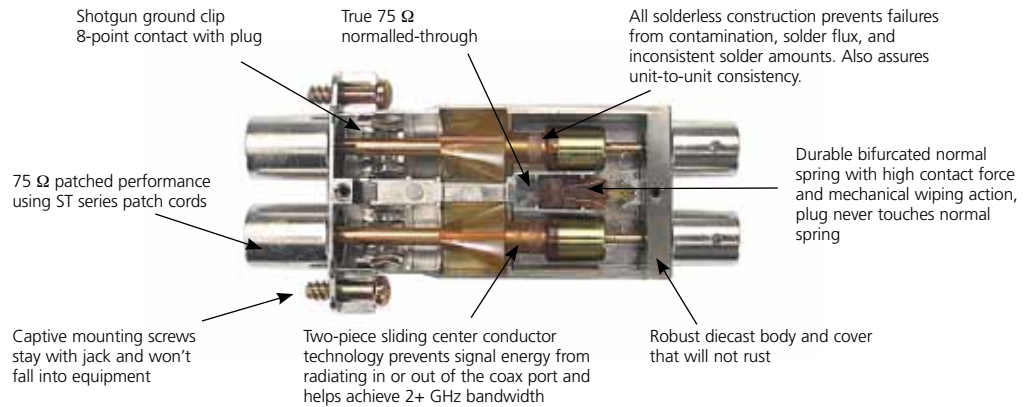


Standard Size Super Video Jack
(SVJ-2/SVJ-2T)

The SVJ-2 family is designed for use in high data rate applications including uncompressed HDTV, D1 digital video and all lower data rate video transmission methods.

Features

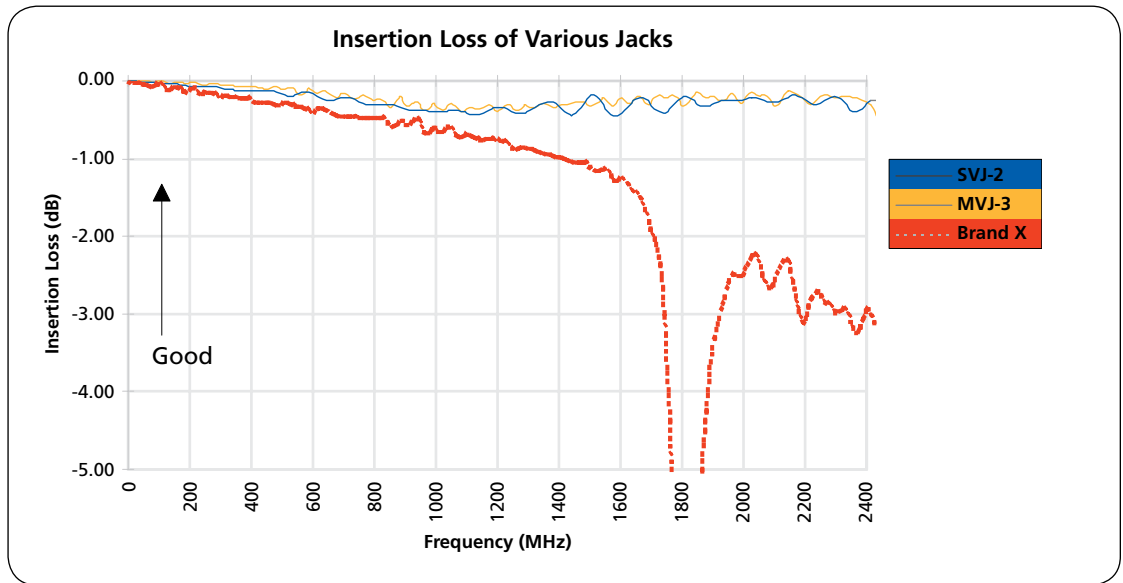
- True 75 Ω for excellent digital performance when normalled or patched with ADC ST series patch cords
- Gold-plated components assure signal quality and tarnish resistance, minimum 50 μ inch
- Sealed switch prevents external contamination
- All-solderless construction eliminates solder-related failures
- Long-beam bifurcated springs provide firm contact and prevent spring fatigue
- Closed-entry BNC center conductor prevents damage and provides reliable contact
- Two-piece center conductor prevents RFI radiation leakage
- Shotgun ground clip contacts plug at multiple points
- Tough diecast body will not rust or flex
- Captive mounting screws will not fall out
- Precision-tooled parts for consistent quality
- Meet MIL-STD-202F for environmental and mechanical reliability
- Patch plug never touches normal switch, dramatically increasing reliability



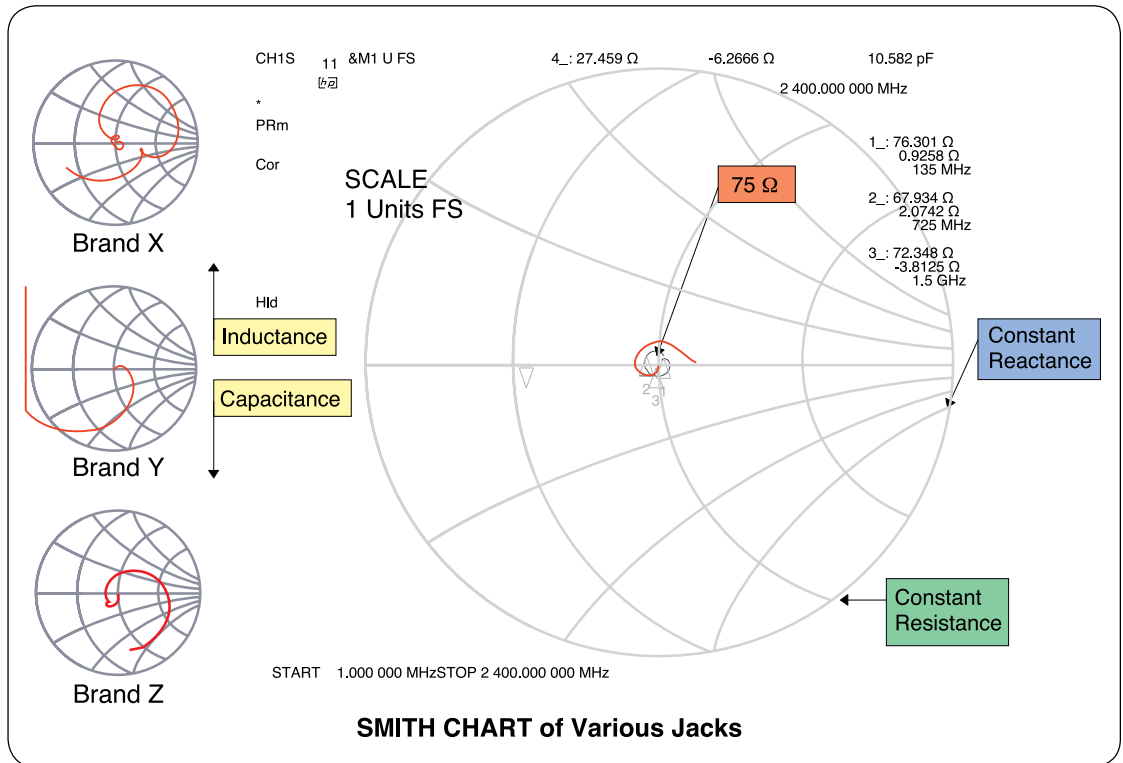
SVJ-2T
Standard Size Super Video Jack
(Interior View)

Insertion and SMITH Chart

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Insertion loss for ADC's Super Video Jacks stays less than .5 dB to 2.4 GHz.



ADC's Super Video Jacks maintain 75 Ω impedance throughout the band. Competitive jacks spiral out of control.

SVJ-2

Standard Size Super Video Jack Specifications

The SVJ-2 family is rated to handle digital video data rates up to and including uncompressed HDTV SMPTE 292M 1.485 Gbps and SMPTE 424M 3 Gbps.

ELECTRICAL

Rated bandwidth:	2.4 GHz
Return loss:	Better than -20 dB to 2.4 GHz
Characteristic impedance:	75 Ω
Insertion loss:	<.5 dB Loss to 2.4 GHz
Center conductor diameter:	Accepts .09 center conductor
Contact resistance:	Less than 20 mΩ
Termination resistor:	75 Ω, ± 1%

MECHANICAL

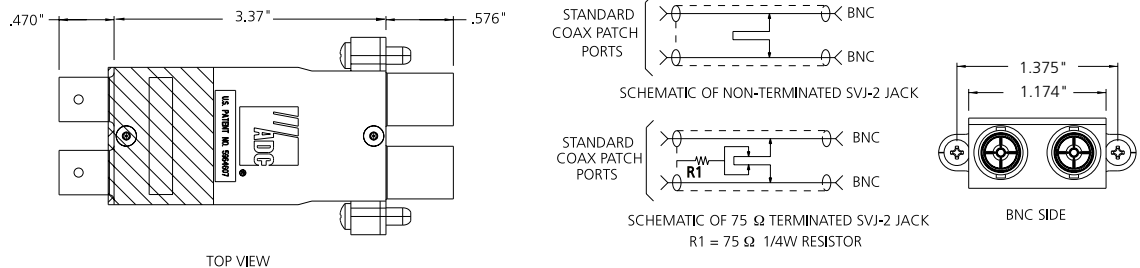
Mechanical shock:	Per MIL-STD-202, Method 213 test condition G
Vibration:	Per MIL-STD-202, Method 201
Insertion force:	12 lbs max
Withdrawal force:	3 lbs min
Life cycles:	20,000 insertion/withdrawal cycles min

MATERIAL

Body and cover:	Zinc diecast per ASTM B86
Front and rear	
Center conductors:	Phosphor bronze per ASTM B139
Insulators:	Polyetherimide resin rated UL 94V-0
Switching springs:	Beryllium copper per ASTM B196

ENVIRONMENTAL

Temperature	
Operating:	-40° C to 65° C
Storage:	-55° C to 85° C
Thermal shock:	Per MIL-STD-202, Method 107
Humidity	
Operating:	0% to 95%, non-condensing
Storage:	0% to 95%, non-condensing
Salt spray:	Per MIL-STD-202, Method 101
Moisture resistance:	Per MIL-STD-202, Method 106
Dust resistance:	Per MIL-STD-202, Method 110A

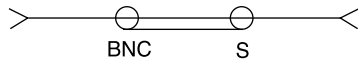


SVJ-2 Standard Size Super Video Jack

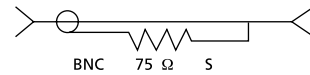
WECO Standard Size Straight-Through Video Jacks

For applications requiring independent ground such as tie line panels, the straight-through CJ2014N and the self-terminating CJ2020N-75 jacks are the logical choice. These jacks mount on standard .625" centers and have a rated bandwidth up to 2.4 GHz for analog HDTV, L-Band and S-Band applications.

NOTE: The single terminating jacks cannot be installed directly adjacent to switching jacks due to interference with the terminating resistor housing. Leave one empty space between the CJ2020N-75 and switching jacks.



Straight-Through Standard Size Video Jack
(CJ2014N)



Straight-Through Standard Size Video Jack
with 75 Ω Termination
(CJ2020N-75)

WECO Standard Size Straight-Through Video Jack Specifications CJ2014N and CJ2020N-75 (terminated)

The CJ standard size jacks are rated to handle digital video data rates up to and including uncompressed HDTV 292M 1.485 Gpbs and SMPTE 424M 3 Gpbs. They are also rated for L-Band and S-Band use.

ELECTRICAL

Characteristic impedance:	62.5 Ω nominal
Return loss:	> -20 dB; 1 MHz to 2 GHz
Contact resistance:	0.030 Ω max change post environment

MECHANICAL

Mechanical shock:	Per MIL-STD-202, Method 213
Vibration:	Per MIL-STD-202, Method 201
Insertion force:	7 lbs (3.17 kg) min
Withdrawal force:	1.5 lbs (0.675 kg) min
Life:	10,000 insertion/withdrawal cycles min

ENVIRONMENTAL

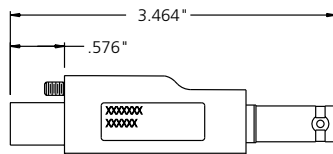
Operating temperature:	-40° C to +65° C
Non-operating temperature:	-55° C to +85° C non-operating
Thermal shock:	Per MIL-STD-202, Method 107
Humidity:	0% to 95% non-condensing, operating and non-operating
Salt spray:	Per MIL-STD-202, Method 101
Moisture resistance:	Per MIL-STD-202, Method 106

MATERIAL

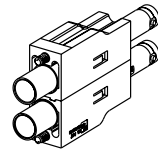
Jack sleeve and frame:	Brass per ASTM B16 with electro-deposited nickel plating per QQ-N-290 or electro-deposited gold plating per MIL-G-45204
Center conductors .090" (.23 cm):	Beryllium copper per QQ-C-533 with electro-deposited gold plating per MIL-G-45204 on contact areas only
Outer conductor contacts:	Phosphor bronze QQ-B-746 with electro-deposited gold plating per MIL-G-45204 or electro-deposited nickel plating per QQ-N-290
Insulators:	Rated UL 94V-0 for flammability
Crimping sleeves:	Brass per ASTM B16 with tin plating per MIL-T-10727

OTHER

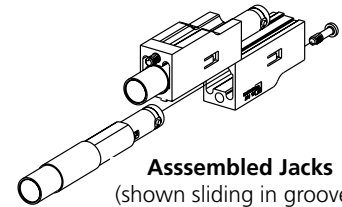
Interface dimensions:	Outer diameter of mating plugs must be .375" (.95 cm) with pin diameter of .090" (.23 cm) or .070" (.18 cm)
Mounting information:	All jacks are supplied with 6-32, 5/16" Phillips head screws



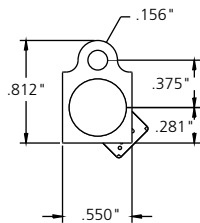
CJ2014N



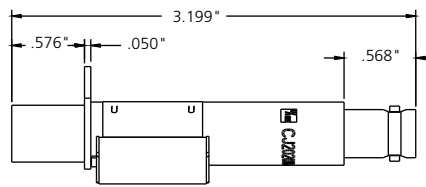
Assembled Jacks
(shown assembled)



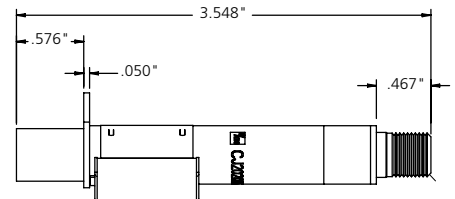
Assembled Jacks
(shown sliding in grooves)



CJ2020-N75
CJ2020-N75FF



Dimensions for CJ2020N-75 and CJ2011N
(CJ2011N has no termination can)



Dimensions for CJ2020-N75FF

MUSA Standard Video Jacks

ADC is the first company worldwide to offer both MUSA standard and WECO standard mid-sized and standard-sized coaxial video jacks. We offer a complete portfolio of MUSA standard panels and accessories including jacks, U-links, accessories, panels and patch cords. The new line of 75 Ω HDTV-ready coaxial jacks and accessories offers superior electrical and mechanical performance as well as easier mounting options compared with current industry products.

Jack Features

- HDTV Super Video Jacks rated to 2.3+ GHz
- Return loss of -17db at 2.3 GHz
- Insertion loss of -.07db to 2.3 GHz
- Jacks rated to 10,000 insertion/withdrawal cycles
- Patented dovetail mounting system provides secure and easy jack replacement
- Exclusive captivated mounting screw
- Molded jack holder provides outstanding durability and isolation between adjacent jacks
- Compatible with BPO MUSA standard products



MUSA U-Link
(UL-SM1625)



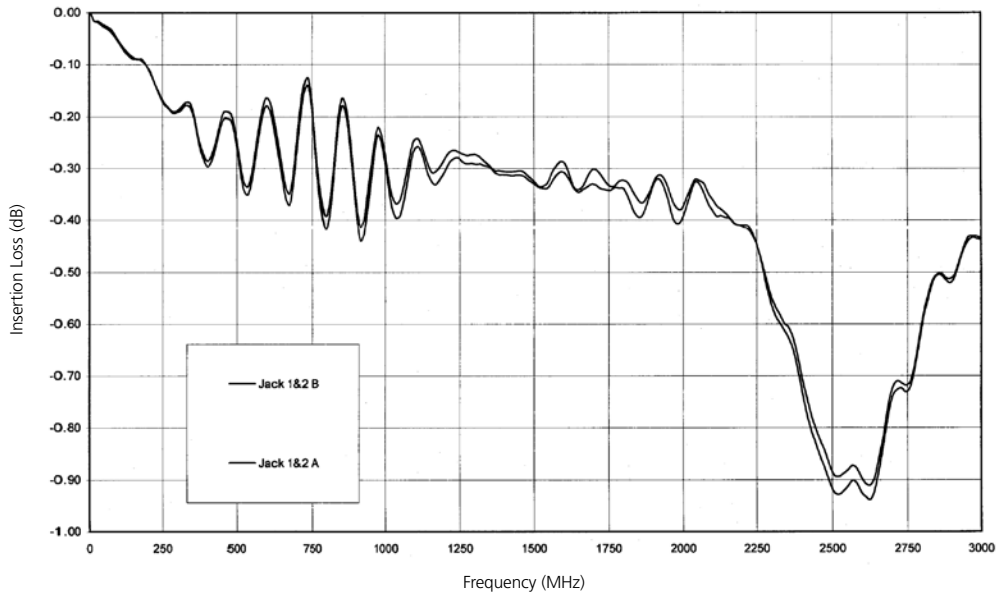
SMJ-2100N Jack

U-Link Features

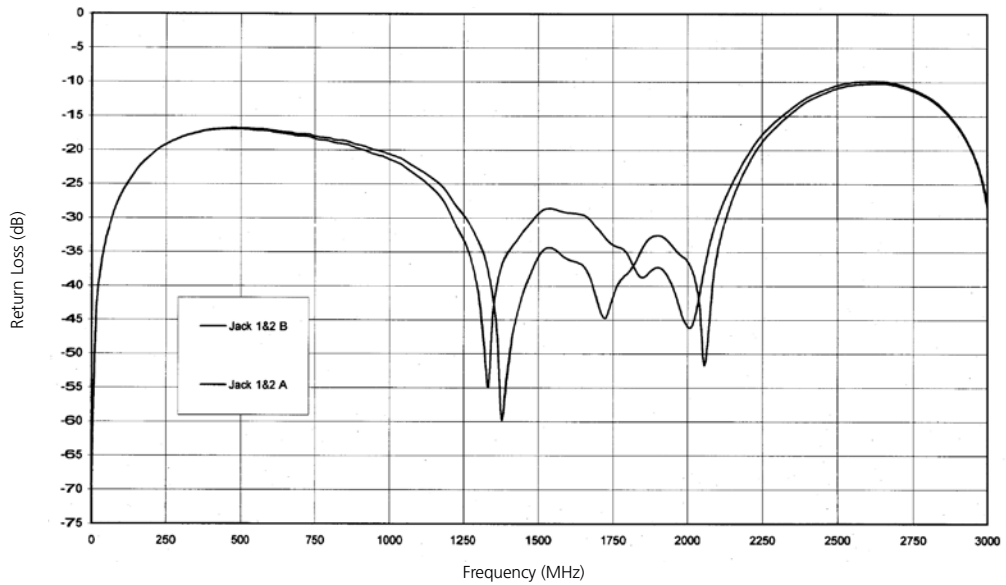
- Ergonomically designed handle makes insertion/withdrawal easier, hole for pull chain
- Solderless construction—Weee and Rohs compliant
- High-performance U-Link matched for uncompressed HDTV signals (1.485 Gbps)
- Precision-molded insulators for true impedance match and greater unit-to-unit consistency compared to machined plastic
- Unique closed-entry center conductor prevents damage and intermitance from misaligned male pins
- One-piece gold-plated center conductor
- Robust diecast body with insulated molded outer shell
- Transparent icon allows designation label underneath
- Plug-in color coded circuit icon available

MUSA Standard Video Jacks Insertion and Return Loss

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Insertion Loss
MUSA Video Connectors (SMJ-2100N) with Looping Plug



Return Loss
MUSA Video Connectors (SMJ-2100N) with Looping Plug

MUSA Straight-Through Video Jack Specifications SMJ-2100N

The SMJ family is rated to handle analog and digital video data rates up to and including HDTV SMPTE 242M 1.485 Gbps and SMPTE 424M 3 Gbps. They are also rated for L-Band and S-Band use.

ELECTRICAL

Characteristic impedance:	75 Ω nominal
Return loss:	> 17 dB; 300 KHz to 2.4 GHz
Contact resistance:	10 m Ω typical

MECHANICAL

Mechanical shock:	Per MIL-STD-202, Method 213
Vibration:	Per MIL-STD-202, Method 201
Insertion force:	7 lbs maximum
Withdrawal force:	1.5 lbs minimum

ENVIRONMENTAL

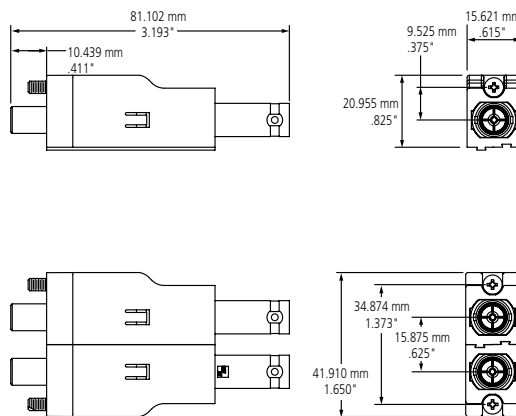
Operating temp:	-40° C to 65° C
Storage temp:	-55° C to 85° C
Thermal shock:	Per MIL-STD-202, Method 107
Humidity:	0% to 95% non-condensing, operating and non-operating
Salt spray:	Per MIL-STD-202, Method 101
Moisture resistance:	Per MIL-STD-202, Method 106

MATERIAL

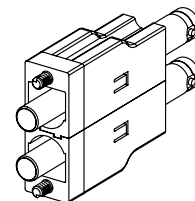
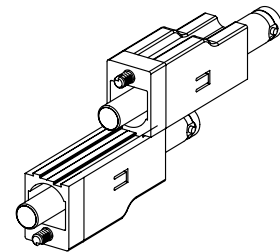
Jack sleeve and frame:	CDA 360 brass rod per ASTM B16 with electro-deposit nickel plating per QQ-N-290
Center conductors:	Phosphor bronze per ASTM B139 with electro-deposited gold plating per MIL-G-45204
Insulators:	Unreinforced polyetherimide resin rated UL94-V0 for flammability

OTHER

Interface dimensions:	Outside diameter of mating plugs must be .298" (.75 cm) with pin diameter of .048" (.12 cm)
Mounting details:	Jacks supplied with a 6-32 UNC-2A 5/16" Phillips head screws (zinc chromate plated)



SMJ-2100N



Ordering Information

Description	Catalog Number
Midsized Video Jacks	
Dual self-normalizing video jack, non-terminated, HD	MVJ-3
Dual self-normalizing video jack, 75 Ω terminated, HD	MVJ-3T
Dual non-normalized video jack, non-terminated, HD	MVJ-3NN
Single straight-through video Jack, short body, non-terminated, HD	CJ3014N
Single straight-through video Jack, short body, 75 Ω terminated, HD	CJ3014N-75
Single straight-through video jack, long body, non-terminated, HD	CJ4014N
Single straight-through, video Jack, long body, 75 Ω terminated, HD	CJ4014N-75
Standard Size Super Video Jacks	
Dual self-normalizing super video jack, non-terminated, HD	SVJ-2-X
Dual self-normalizing super video jack, 75 Ω terminated, HD	SVJ-2T-X
Standard Size Video Jacks	
Single straight-through video jack, non-terminated, HD	CJ2014N
Single straight-through video jack, terminated, HD	CJ2020N-75
Single straight-through video jack, terminated with F connector, HD	CJ2020N-75F
Dual self-normalizing video jack, non-terminated, analog/SD	SJ2000N
Dual self-normalizing video jack, 75 Ω terminated, analog/SD	SJ2000N-75
MUSA Standard Video Jacks	
Single video jack, MUSA standard, HD	SMJ-2100N
Conversion Plugs and Adapters	
Standard size plug to BNC adapter	CP1051N
Standard size plug to BNC adapter, gold	CP1051G
Midsized plug to BNC adapter, short body	MBNC-3
Midsized plug to BNC adapter, long body	MBNC-3L
Standard size receptacle to midsized receptacle adapter	CAXADPT-1
Midsized plug to standard size receptacle adapter	CAXADPT-2
Standard size plug to midsized receptacle adapter	CAXADPT-3
Coax adapter MUSA plug to BNC	CAXADPT-MU/BNC
Coax adapter MUSA plug to standard receptacle	CAXADPT-MU/CPSTD
Coax adapter MUSA plug to midsized receptacle	CAXADPT-MU/CPMID



Standard Size Conversion Plug
(CP1051N)



Midsized Plug to BNC Adapter
(MBNC-3)



Standard to Midsized Conversion Adapter
(CAXADPT-1)



Midsized to Standard Conversion Plug
(CAXADPT-2)



Standard to Midsized Conversion Plug
(CAXADPT-3)



MUSA to BNC Adapter
(CAXADPT-MU/BNC)



MUSA to Midsized Adapter
(CAXADPT-MU/CPMID)



MUSA to Standard Size Adapter
(CAXADPT-MU/CPSTD)

Humbucker

Common mode hum caused by differences in ground potential is often found in long video cables, incoming and outgoing lines, and separate power distribution systems. The ADC Humbucker eliminates 99.6 percent of a 10 Volt p-p 50/60 Hz ground-induced hum in a 200-foot (61 m) RG59 coaxial cable run. The actual amount of hum reduction depends on cable length, cable type, ground loop potential, and ground loop frequency.



Humbucker
(HUM-1)

Ordering Information	
Description	Catalog Number
Humbucker Humbucking Coil	HUM-1
Coaxial Patch Plugs	
Standard size HD crimp plug for Belden 1505F	CP1545-1
Midsized HD crimp plug for Belden 1505F	CP1545-3
MUSA HD crimp plug and boot for Belden 1505F, bulk 50 units	CP-1-MU-B50
Termination and Looping Plugs	
Standard size 75 Ω termination plug, nickel	CPSTD-TP2
Midsized 75 Ω termination plug, nickel	CPMID-TP2
MUSA 75 Ω termination plug	MUSA-TP2
Standard size HD looping plug, nickel	LP-S1625
Midsized HD looping plug, nickel	LP-M1500
MUSA HD-U-link, nickel	UL-SM1625
Looping plug colored identification icon, 25 pack	ADCICBXX*
Circuit Guard Plugs, sold in bags of 25	
Standard size	CJP-S-XX
Midsized	CJP-M-XX



WECO Looping Plugs
(LP-S1625/LP-M1500)



MUSA U-Link
(UL-SM1625)

*** XX Icon Colors:**

- | | | |
|-----------------|---------------|----------------|
| 01 Office White | 06 Gray | 11 Brown |
| 02 Black | 07 Snow White | 12 Clear |
| 03 Red | 08 Orange | 13 Putty White |
| 04 Green | 09 Yellow | |
| 05 Blue | 10 Purple | |

Video Patching Systems

ProPatch® Integrated (PPI) Series

ProPatch PPI Series Panels are the ideal solution when you need a rugged, full-featured panel that will stand up to the most demanding professional applications. These tough, attractive panels feature a rugged epoxy powder-coated steel weldment chassis with a durable molded ABS jack insert. The panels feature rear silk screening for port identification and an adjustable rear cable support bar for superior strain relief, and ADC's exclusive snap-over designation system that prevents cards and windows from coming loose from the panel as is common with other systems. The durable steel frame ensures against bent, cracked or broken rack ears, and the molded ABS inserts prevent stripped screws and cracked inserts common with phenolic panel inserts. Panels are available in black or gray.



1 RU Midsize 2x32 Panel



1.5 RU Midsize 2x32 Panel



2 RU Midsize 2x32 Panel
(rear view)

Features

- Tough professional construction
- Welded steel chassis with high-impact ABS plastic-molded inserts
- Adjustable steel strain relief cable bar with holes for cable ties
- Highest quality, widest bandwidth, longest lasting jacks available. True 75 Ω impedance
- Molded jack inserts are much more durable than phenolic inserts; screws don't strip out
- Snap-on designation windows for labeling jacks
- All jack styles available
- ProPatch PPI series unloaded video panels come in 1 RU and 2 RU models. They feature a tough steel weldment chassis with molded ABS jack insert and a strong, adjustable steel cable support bar with holes for cable ties.
- Panels are available for standard size jacks in 2x24 arrays. For midsize jacks, panels are available in 2x32 and 3x32 arrays. When ordering jacks, alternate short and long jacks to ease cabling.

Ordering Information

Description					Catalog Number		
		Jack Type	Color		1 RU (1.75")	1.5 RU (2.63")	2 RU (3.50")
Midsize	Normalling Jacks	MVJ-3	Gray	2x32	PPI1232-MVJ	PPI15232-MVJ	PPI2232-MVJ
			Black	2x32	PPI1232-MVJ-BK	PPI15232-MVJ-BK	PPI2232-MVJ-BK
		MVJ-3Tx Terminated	Gray	2x32	PPI1232-MVJT	PPI15232-MVJT	PPI2232-MVJT
			Black	2x32	PPI1232-MVJT-BK	PPI15232-MVJT-BK	PPI2232-MVJT-BK
	Straight-Through Jacks	CJM	Gray	2x32	PPI1232-CJM	PPI15232-CJM	PPI2232-CJM
			Black	2x32	PPI1232-CJM-BK	PPI15232-CJM-BK	PPI2232-CJM-BK
		CJMT Terminated	Gray	2x32	PPI1232-CJMT	PPI15232-CJMT	PPI2232-CJMT
			Black	2x32	PPI1232-CJMT-BK	PPI15232-CJMT-BK	PPI2232-CJMT-BK
	Monitoring Panels	MVJ-3	Black	3x32	-	-	PPI2332-MVJ-MON-BK
		MVJ-3T Terminated	Black	3x32	-	-	PPI2332-MVJT-MONT-BK
	Empty	None	Gray	2x32	PPI1232	PPI15232	PPI2232
			Black	2x32	PPI1232-BK	PPI15232-BK	PPI2232-BK
Standard Size	Normalling Jacks	SVJ-2	Gray	2x24	PPI1224-SVJ	PPI15224-SVJ	PPI2224-SVJ
			Black	2x24	PPI1224-SVJ-BK	PPI15224-SVJ-BK	PPI2224-SVJ-BK
		SVJ-2T Terminated	Gray	2x24	PPI1224-SVJT	PPI15224-SVJT	PPI2224-SVJT
			Black	2x24	PPI1224-SVJT-BK	PPI15224-SVJT-BK	PPI2224-SVJT-BK
	Straight-Through Jacks	CJ2014N	Gray	2x24	PPI1224-CJ48	PPI15224-CJ48	PPI2224-CJ48
			Black	2x24	PPI1224-CJ48-BK	PPI15224-CJ48-BK	PPI2224-CJ48-BK
		CJ2020N-75 Terminated	Gray	2x24	PPI1224-CJ48T	PPI15224-CJ48T	PPI2224-CJ48T
			Black	2x24	PPI1224-CJ48T-BK	PPI15224-CJ48T-BK	PPI2224-CJ48T-BK
	Monitoring Panels	SVJ-2	Gray	3x24	-	-	PPI2324-SVJ-MON
			Black	3x24	-	-	PPI2324-SVJ-MON-BK
		SVJ-2T Terminated	Gray	3x24	-	-	PPI2324-SVJT-MONT
			Black	3x24	-	--	PPI2324-SVJT-MONT-BK

Ordering Information

Description					Catalog Number		
		Jack Type	Color		1 RU (1.75")	1.5 RU (2.63")	2 RU (3.50")
MUSA Standard	Straight-Through Jacks	SMJ-2100	Gray	2x24	PPI1224-SMJ	PPI15224-SMJ	PPI2224-SMJ
			Black	2x24	PPI1224-SMJ-BK	PPI15224-SMJ-BK	PPI2224-SMJ-BK
Standard Size and MUSA	Empty	None	Gray	2x24	PPI1224	PPI15224	PPI2224
			Black	2x24	PPI1224-BK	PPI15224-BK	PPI2224-BK



2 RU Midsize 3x32
Monitoring Panel

Video Patching Systems

ProPatch® Economical (PPE) Series

ProPatch PPE Series Panels are designed to offer ADC performance on a modest budget. The tough, attractive panels feature a rugged epoxy powder-coated steel faceplate with a durable molded ABS jack insert. The PPE series panels do not provide any rear silk screening for port identification or cable support bars, but are available with the same jack options as the full-featured PPI series panels. Designation strips are provided with clear slide-in acetate windows, upgradeable to ADC's exclusive snap-over designation system. The durable steel faceplate ensures against bent, cracked or broken rack ears, and the molded ABS inserts prevent stripped screws and cracked inserts common with phenolic panel inserts. PPE panels are covered by a one-year warranty against defects.

Features

- Steel chassis with high-impact ABS plastic-molded inserts
- Highest quality, widest bandwidth, longest lasting jacks available. True 75 Ω impedance
- Snap-over window
- Available in all jack types
- ProPatch® PPE Series unloaded video panels come in 1, 2, 3 and 4 RU models. They feature a rugged steel faceplate with molded ABS jack inserts.
- Panels are available for standard size jacks in 2x24 arrays. For midsize jacks, panels are available in 2x32 and 3x32 arrays. When ordering jacks, alternate short and long jacks to ease cabling.



1 RU Midsize 2x32 Panel
(rear view)



1 RU Standard Size/MUSA 2x24 Panel



1.5 RU Standard Size/MUSA 2x24 Panel



2 RU Midsize 2x32 Panel



4 RU Midsize 6x32 Panel



Video Patching Systems

ProPatch® Economical (PPE) Series

The information below explains the catalog numbers contained in the charts on this page and the next. Custom configurations are available; please contact ADC.

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Ordering Information

Description					Catalog Number		
		Jack Type	Color		1 RU (1.75")	1.5 RU (2.63")	2 RU (3.50")
Midsize	Normalling Jacks	MVJ-3	Gray	2x32	PPE1232-MVJ	PPE15232-MVJ	PPE2232-MVJ
			Black	2x32	PPE1232-MVJ-BK	PPE15232-MVJ-BK	PPE2232-MVJ-BK
		MVJ-3T Terminated	Gray	2x32	PPE1232-MVJT	PPE15232-MVJT	PPE2232-MVJT
			Black	2x32	PPE1232-MVJT-BK	PPE15232-MVJT-BK	PPE2232-MVJT-BK
	Straight-Through Jacks	CJM	Gray	2x32	PPE1232-CJM	PPE15232-CJM	PPE2232-CJM
			Black	2x32	PPE1232-CJM-BK	PPE15232-CJM-BK	PPE2232-CJM-BK
		CJMT Terminated	Gray	2x32	PPE1232-CJMT	PPE15232-CJMT	PPE2232-CJMT
			Black	2x32	PPE1232-CJMT-BK	PPE15232-CJMT-BK	PPE2232-CJMT-BK
	Monitoring Panels	MVJ-3	Black	3x32	-	-	PPE2332-MVJ-MON-BK
		MVJ-3T Terminated	Black	3x32	-	-	PPE2332-MVJT-MONT-BK
	Empty	None	Gray	2x32	PPE1232	PPE15232	PPE2232
			Black	2x32	PPE1232-BK	PPE15232-BK	PPE2232-BK

Ordering Information

Description					Catalog Number		
		Jack Type	Color		1 RU (1.75")	1.5 RU (2.63")	2 RU (3.50")
Standard Size	Normalling Jacks	SVJ-2	Gray	2x24	PPE1224-SVJ	PPE15224-SVJ	PPE2224-SVJ
			Black	2x24	PPE1224-SVJ-BK	PPE15224-SVJ-BK	PPE2224-SVJ-BK
		SVJ-2T Terminated	Gray	2x24	PPE1224-SVJT	PPE15224-SVJT	PPE2224-SVJT
			Black	2x24	PPE1224-SVJT-BK	PPE15224-SVJT-BK	PPE2224-SVJT-BK
	Straight-Through Jacks	CJ2014N	Gray	2x24	PPE1224-CJ48	PPE15224-CJ48	PPE2224-CJ48
			Black	2x24	PPE1224-CJ48-BK	PPE15224-CJ48-BK	PPE2224-CJ48-BK
		CJ2020N-75 Terminated	Gray	2x24	PPE1224-CJ48T	PPE15224-CJ48T	PPE2224-CJ48T
			Black	2x24	PPE1224-CJ48T-BK	PPE15224-CJ48T-BK	PPE2224-CJ48T-BK
	Monitoring Panel	SVJ-2	Gray	3x24	-	-	PPE2324-SVJ-MON
			Black	3x24	-	-	PPE2324-SVJ-MON-BK
		SVJ-2T Terminated	Gray	3x24	-	-	PPE2324-SVJT-MONT
			Black	3x24	-	-	PPE2324-SVJT-MONT-BK
MUSA Standard	Straight-Through Jacks	SMJ-2100	Gray	2x24	PPE1224-SMJ	PPE15224-SMJ	PPE2224-SMJ
			Black	2x24	PPE1224-SMJ-BK	PPE15224-SMJ-BK	PPE2224-SMJ-BK
Standard Size and MUSA	Empty	None	Gray	2x24	PPE1224	PPE15224	PPE2224
			Black	2x24	PPE1224-BK	PPE15224-BK	PPE2224-BK



Video Patching Systems

ProPatch® Economical (PPE) Series

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Ordering Information						
Description					Catalog Number	
Midsized	Normalling Jacks	MVJ-3	Gray	6x32	PPE4632-MVJ	
			Black	6x32	PPE4632-MVJ-BK	
		MVJ-3T Terminated	Gray	6x32	PPE4632-MVJT	
			Black	6x32	PPE4632-MVJT-BK	
	Straight-Through Jacks	CJM	Gray	6x32	PPE4632-CJM	
			Black	6x32	PPE4632-CJM-BK	
		CJMT Terminated	Gray	6x32	PPE4632-CJMT	
			Black	6x32	PPE4632-CJMT-BK	
	Empty	None	Gray	6x32	PPE4632	
			Black	6x32	PPE4632-BK	
	Standard Size	Normalling Jacks	SVJ-2	Gray	6x24	PPE4624-SVJ
				Black	6x24	PPE4624-SVJ-BK
SVJ-2T Terminated			Gray	6x24	PPE4624-SVJT	
			Black	6x24	PPE4624-SVJT-BK	
Straight-Through Jacks		CJ2014N	Gray	6x24	PPE4624-CJ48	
			Black	6x24	PPE4624-CJ48-BK	
		CJ2020N-75 Terminated	Gray	6x24	PPE4624-CJ48T	
			Black	6x24	PPE4624-CJ48T-BK	
MUSA Standard	Straight-Through Jacks	SMJ-2100	Gray	6x24	PPE4624-SMJ	
			Black	6x24	PPE4624-SMJ-BK	
Standard Size and MUSA	Empty	None	Gray	6x24	PPE4624	
			Black	6x24	PPE4624-BK	
Snap-Over Window Kits						
Window for all 1-rack unit standard WECO and MUSA 1.75" panels, 2 windows					VP-DES-279-A	
Window for all 1-rack unit midsize WECO 1.75" panels, 2 windows					VP-DES-343-A	
Window for all 1.5-rack unit and larger standard, midsize and MUSA, 1 window					HDW-101115	

Video Patching Systems

Coax Patch Cords

ADC offers high-quality video patch cords capable of handling uncompressed high-definition digital video, serial digital video, and analog as well as AES audio. ADC patch cords feature a patented True 75 Ω design made of the highest quality materials that virtually eliminates bit errors, and provides excellent mechanical durability.



The digital television revolution is stretching the limits of the physical plant technology designed for analog video copper. Cable and connectors not optimized for the digital environment can seriously degrade the digital signal being transported. The problem is that all WECO-standard jacks and patch cords exhibit an impedance violation of between 58 and 62 Ω in the patched state. This becomes a major source of attenuation and bit errors in serial digital and high-definition video signals.

Patented HD Patch Cords

ADC's ST series standard-size patch cords feature a patented design that provides a true 75 Ω interface in the patched state when used with ADC's SVJ-2 super video jack family. ST series maintains the WECO interface for maximum industry compatibility and provides a true 75 Ω interface.

HD Rated VX™ Series

ADC's VX™ standard, midsize and MUSA standard video patch cords feature a unique plug design that optimizes impedance performance during the patched state. The unique plug design is optimized for HD video applications for WECO midsize and MUSA formats. For WECO standard size HD patching, the ST series is recommended.

Both designs reduce or eliminate attenuation and bit errors in serial digital and high-definition video signals, especially in the uncompressed mode.

Features

- Patented design provides a 75 Ω interface in the patched state
- Standard size compatible with all WECO .090 standard video jacks
- Performance matched for uncompressed HDTV signals (1.485 Gbit/s)
- Gastight crimp design. 100 percent solderless construction assures quality
- Precision-molded insulators for true impedance match and greater unit-to-unit consistency compared to machined plastic
- HD-rated 1505F cable with matte finish
- Full-molded strain relief defeats abuse
- Gold-plated center conductors
- Available in red, green, blue, black, in 2-foot (.6 m) to 6-foot (1.8 m) lengths
- MUSA format features unique closed-entry center pin to prevent breakage



Video Patching Systems

Coax Patch Cords – For all WECO Standard Size 2x24 and 2x26 Panels

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Ordering Information

Description	Catalog Number				
	1 ft/.3 m	2 ft/.61 m	3 ft/.93 m	4 ft/1.22 m	6 ft/1.83 m
WECO Standard Size VX to Standard Size VX Plug					
Black	BK1VX	BK2VX	BK3VX	BK4VX	BK6VX
Red	R1VX	R2VX	R3VX	R4VX	R6VX
Green	G1VX	G2VX	G3VX	G4VX	G6VX
Blue	B1VX	B2VX	B3VX	B4VX	B6VX
WECO ST Standard Size ST HD to Standard Size Plug					
Black	BK1V-ST5	BK2V-ST5	BK3V-ST5	BK4V-ST5	BK6V-ST5
Red	R1V-ST5	R2V-ST5	R3V-ST5	R4V-ST5	R6V-ST5
Green	-	G2V-ST5	G3V-ST5	G4V-ST5	G6V-ST5
Blue	-	B2V-ST5	B3V-ST5	B4V-ST5	B6V-ST5

Note: Standard patch cord colors are black, red, orange, yellow, green, blue, violet and white. These color cords are available in the standard lengths shown above; please contact ADC for additional custom lengths and leadtime.

Ordering Information

Description	Catalog Number				
	1 ft/.3 m	2 ft/.61m	3 ft/.93 m	4 ft/1.22 m	6 ft/1.83 m
WECO Midsize Plug to Midsize Plug					
Black	BK1V-STM	BK2V-STM	BK3V-STM	BK4V-STM	BK6V-STM
Red	R1V-STM	R2V-STM	R3V-STM	R4V-STM	R6V-STM
Green	G1V-STM	G2V-STM	G3V-STM	G4V-STM	G6V-STM
Blue	B1V-STM	B2V-STM	B3V-STM	B4V-STM	B6V-STM
White	W1V-STM	W2V-STM	W3V-STM	W4V-STM	W6V-STM
WECO Midsize Plug to Standard Size Plug					
Black	BK1V-M-S	BK2V-M-S	BK3V-M-S	BK4V-M-S	BK6V-M-S
Red	R1V-M-S	R2V-M-S	R3V-M-S	R4V-M-S	R6V-M-S
Green	G1V-M-S	G2V-M-S	G3V-M-S	G4V-M-S	G6V-M-S
Blue	B1V-M-S	B2V-M-S	B3V-M-S	B4V-M-S	B6V-M-S
MUSA to MUSA (HD)					
Black	BK300V-MU	BK600V-MU	BK900V-MU	BK1200V-MU	BK1800V-MU
Red	R300V-MU	R600V-MU	R900V-MU	R1200V-MU	R1800V-MU
Green	G300V-MU	G600V-MU	G900V-MU	G1200V-MU	G1800V-MU
Blue	B300V-MU	B600V-MU	B900V-MU	B1200V-MU	B1800V-MU

Note: Standard patch cord colors are black, red, orange, yellow, green, blue, violet and white. These color cords are available in the standard lengths shown above; please contact ADC for additional custom lengths and leadtime.

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