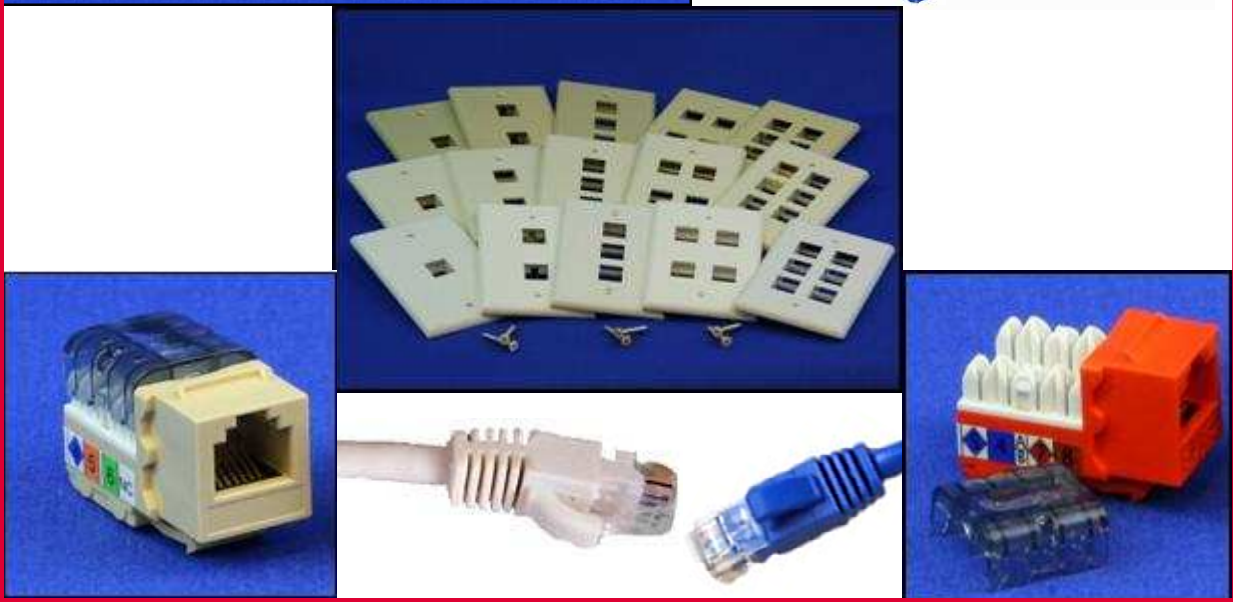


ATRACS

Atras Network Communications

“Building Reliable Results”

LOW VOLTAGE
WIRE AND CABLE
FOR VOICE & DATA
SATELLITE TV, CATV
CCTV, AND SECURITY
STRUCTURED VOICE AND DATA
CONNECTIVITY AND RF DEVICES





ATRAS NETWORK COMMUNICATIONS



is a subsidiary of ATRAS NETCOM which owns and operates manufacturing plants in Taiwan, Malaysia, and China, with a 350,000 square foot factory that opened in Shanghai, China in June, 2005. We have been manufacturing products since 1986 for various industries including the CATV industry, Satellite TV broadcast industry, Security and CCTV industry and the Voice and Data communications industries. All of our manufacturing facilities are ISO 9001:2008 certified. ATRAS NETCOM factories are vertically integrated operations, with in-house extrusion, tooling, injection molding, casting, coating, plating and secondary machining capabilities.



Through LANTEK ELECTRONICS, another subsidiary, ATRAS NETWORK COMMUNICATIONS offers RF electronics for the North American CATV and Satellite TV industries. Lantek has very unique capabilities to manufacture high quality, high volume, UL listed RF devices that comply with SCTE and other industry guidelines. The product offering includes the ATRAS brand, plus several OEM branded products with well-known US corporations.



ATRAS NETWORK COMMUNICATIONS also provides Information and Communications Industry (ICT) structured cabling (voice/data) cable and connectivity products to support the North American communications industry. All of our products are approved by UL, cUL, CSA, ETL and RoHS. All ATRAS NETCOM jacks, faceplates, inserts, and panels comply with TIA-568C.2 standards for Category 3, Category 5E and Category 6 requirements.

Through ATRAS NETCOM we can also provide quality low voltage wire and cable for many applications including sound, security, HVAC, fire, CCTV, CATV, and voice & data for commercial and residential wiring. All cable products are UL, cUL, CSA, or ETL listed to the appropriate standards and requirements of the low voltage cabling industry.



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704-966-0324



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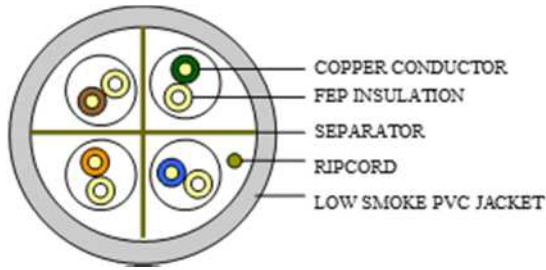
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“Building Reliable Results”

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704-966-0324



ATS-423CMP-6E-*

Category 6 Plenum Cable
(600 MHz)



CHARACTERISTICS	
Installation Temperature:	0 to 60°C (32° to 140°F)
Mutual Capacitance:	5.6 nF/100 m max
DC Resistance/Unbalance:	≤5% max
Propagation Delay Skew:	≤45 ns/100 m
Impedance 1.0 to 100 MHz:	100 Ohms ± 15%
Nominal Velocity of Propagation (NVP):	73.0%

APPLICATIONS
IEEE 802.3ab: 1000 BASE-T (Gigabit Ethernet)
IEEE 802.3u: 100 BASE-T (Fast Ethernet)
IEEE 802.3i: 10 BASE-T (Ethernet)
ANSI/TIA-854: 1000 BASE-TX
155 Mb/s, 1.2 Gb/s ATM
ANSI X3.263: 100 Mb/s
IEEE 802.3at DTE Power (PoE), IEEE 802.3at (PoE)
Broadband and Baseband Analog Video
Digital Video

CONSTRUCTION	
4 Twisted Pair Cable	
Pair Insulation: Fluorinated Ethylene Propylene (FEP) and Polyolefin (PO)	
23 AWG Solid Bare Copper with Ripcord	
Outer Jacket: Plenum Low Smoke Flame Retardant PVC	
Cable O.D. 6.0 mm (0.177 in)	
*Jacket Colors: Blue (B), White (W), Yellow (Y), Gray (G)	

APPROVALS
UL 444, ISO 9001:2008
UL, cUL, CSA, FT4, NFPA UL 262 CMP, ETL
RoHS Compliant Directive 2011/65/EC (RoHS2)
NEC/CEC: CMP
UL Listed CM, CMP
ANSI/TIA-568-C.2 (2009)
ISO/IEC 11801:2011 Ed.2.2 (Class E)
ANSI/TIA-862-A (Building Automation)
ICES/CEC Type CMP (UL 262)
ICEA S-102-700 (Category 6)
ICE 61156-5 (Edition 2.0)

PAIR IDENTIFICATION	
Pair 1	Blue, Blue/White
Pair 2	Orange, Orange/White
Pair 3	Green, Green/White
Pair 4	Brown, Brown/White

PACKAGING
1000 Foot Easy-Pull Fast Pack Box: Wt. 28 Lbs. (12.7006 kg)

TRANSMISSION PERFORMANCE TABLE

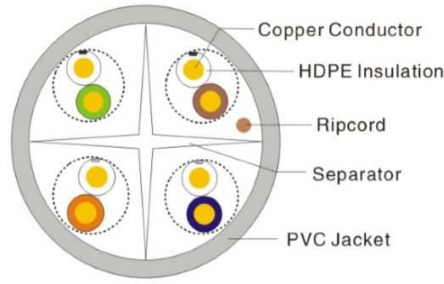
Frequency	IL ATRACS	IL	NEXT ATRACS	NEXT	ACR ATRACS	PSNEXT ATRACS	PSNEXT	PSACR ATRACS	ACRF ATRACS	ACRF	PSACRF ATRACS	PSACRF	RL ATRACS	RL
MHz	Max	TIA Max	Min	TIA Min	Min	Min	TIA Min	Min	Min	TIA Min	Min	TIA Min	Min	TIA Min
1	2.0	2.0	80.3	74.3	78.3	78.3	72.3	76.3	73.8	67.8	70.8	64.8	20.0	20.0
4	3.8	3.8	71.3	65.3	67.5	69.3	63.3	65.5	61.8	55.8	58.8	52.8	23.0	23.0
8	5.3	5.3	66.8	60.8	61.5	64.8	58.8	59.5	55.7	49.7	52.7	46.7	24.5	24.5
10	6.0	6.0	65.3	59.3	59.3	63.3	57.3	57.3	53.8	47.8	50.8	44.8	25.0	25.0
16	7.6	7.6	66.2	56.2	54.6	60.2	54.2	52.6	49.7	43.7	46.7	40.7	25.0	25.0
20	8.5	8.5	60.8	54.8	52.3	58.8	51.8	50.3	47.8	41.8	44.8	38.8	25.0	25.0
31.25	10.7	10.7	57.9	51.9	47.2	55.9	49.9	45.2	43.9	37.9	40.9	37.9	23.6	23.6
62.5	15.4	15.4	53.4	47.4	38.0	51.4	45.4	36.0	37.9	31.9	34.9	28.9	21.5	21.5
100	19.8	19.8	50.3	44.3	30.5	48.3	42.3	28.5	33.8	27.8	30.8	24.8	20.1	20.1
150	24.7	24.7	47.7	41.1	23.0	45.7	39.4	21.0	3.3	24.0	27.3	21.0	18.8	18.8
200	29.0	29.0	45.8	39.8	16.8	43.8	37.8	14.8	27.8	21.8	24.8	18.8	18.0	18.0
250	32.8	32.8	44.3	38.3	11.5	42.3	36.3	9.5	25.8	19.8	22.8	16.8	17.3	17.3
300	36.4	*	43.1	*	6.7	41.1	*	4.7	24.3	*	21.3	*	16.8	*
350	39.8	*	42.1	*	2.3	40.1	*	0.3	22.9	*	19.9	*	16.3	*
400	43.0	*	41.3	*	NA	39.3	*	NA	21.8	*	18.8	*	15.9	*
450	46.0	*	40.5	*	NA	38.5	*	NA	20.7	*	17.7	*	15.5	*
500	48.9	*	39.8	*	NA	37.8	*	NA	19.8	*	16.8	*	15.2	*
550	51.8	*	39.2	*	NA	37.2	*	NA	19.0	*	16.0	*	14.9	*
600	54.5	*	38.6	*	NA	36.6	*	NA	18.2	*	15.2	*	14.7	*

Values are expressed in dB/100M @ 20°C

*Frequencies beyond the TIA requirements are for information only

ACR & PSACR not specified in ANSI-TIA-568-C.2

Data subject to change without notice.



ATS-423CMR-6E-*

Category 6 Non-Plenum Cable
(600 MHz)



CHARACTERISTICS	
Installation Temperature:	0 to 60°C (32° to 140°F)
Mutual Capacitance:	5.6 nF/100 m max
DC Resistance/Unbalance:	≤ 5% max
Propagation Delay Skew:	≤ 45 ns/100 m
Impedance 1.0 to 100 MHz:	100 Ohms ± 15%
Nominal Velocity of Propagation (NVP):	70.2%

APPLICATIONS
IEEE 802.3ab: 1000 BASE-T (Gigabit Ethernet)
IEEE 802.3u: 100 BASE-T (Fast Ethernet)
IEEE 802.3i: 10 BASE-T (Ethernet)
ANSI/TIA-854: 1000 BASE-TX
155 Mb/s, 1.2 Gb/s ATM
ANSI X3.263: 100 Mb/s
IEEE 802.3at DTE Power (PoE), IEEE 802.3at (PoE)
Broadband and Baseband Analog Video
Digital Video

CONSTRUCTION	
4 Twisted Pair Cable	
Pair Insulation: Polyolefin (PO)	
23 AWG Solid Bare Copper with Ripcord	
Outer Jacket: Non-Plenum Low Smoke Flame Retardant PVC	
Cable O.D. 6.0 mm (0.177 in)	
*Jacket Colors: Blue (B), White (W), Yellow (Y), Gray (G)	

APPROVALS
UL 444, ISO 9001:2008
UL, cUL, CSA, FT4, NFPA UL 1666 CMR, ETL
RoHS Compliant Directive 2011/65/EC (RoHS2)
NEC/CEC:CMR
UL Listed CM, CMR
ANSI/TIA-568-C.2 (2009)
ISO/IEC 11801:2011 Ed.2.2 (Class E)
ANSI/TIA-862-A (Building Automation)
ICES/CEC Type CMR (UL 1666)
ICEA S-102-700 (Category 6)
ICE 61156-5 (Edition 2.0)

PAIR IDENTIFICATION	
Pair 1	Blue, Blue/White
Pair 2	Orange, Orange/White
Pair 3	Green, Green/White
Pair 4	Brown, Brown/White

PACKAGING
1000 Foot Easy-Pull Fast Pack Box: Wt. 27 Lbs. (12.247 kg)

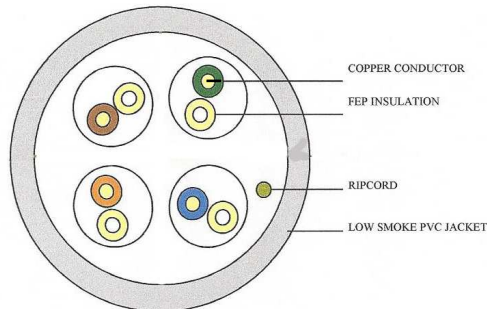
TRANSMISSION PERFORMANCE TABLE														
Frequency	IL ATRAS	IL	NEXT ATRAS	NEXT	ACR ATRAS	PSNEXT ATRAS	PSNEXT	PSACR ATRAS	ACRF ATRAS	ACRF	PSACRF ATRAS	PSACRF	RL ATRAS	RL
MHz	Max	TIA Max	Min	TIA Min	Min	Min	TIA Min	Min	Min	TIA Min	Min	TIA Min	Min	TIA Min
1	2.0	2.0	80.3	74.3	78.3	78.3	72.3	76.3	73.8	67.8	70.8	64.8	20.0	20.0
4	3.8	3.8	71.3	65.3	67.5	69.3	63.3	65.5	61.8	55.8	58.8	52.8	23.0	23.0
8	5.3	5.3	66.8	60.8	61.5	64.8	58.8	59.5	55.7	49.7	52.7	46.7	24.5	24.5
10	6.0	6.0	65.3	59.3	59.3	63.3	57.3	57.3	53.8	47.8	50.8	44.8	25.0	25.0
16	7.6	7.6	66.2	56.2	54.6	60.2	54.2	52.6	49.7	43.7	46.7	40.7	25.0	25.0
20	8.5	8.5	60.8	54.8	52.3	58.8	51.8	50.3	47.8	41.8	44.8	38.8	25.0	25.0
31.25	10.7	10.7	57.9	51.9	47.2	55.9	49.9	45.2	43.9	37.9	40.9	37.9	23.6	23.6
62.5	15.4	15.4	53.4	47.4	38.0	51.4	45.4	36.0	37.9	31.9	34.9	28.9	21.5	21.5
100	19.8	19.8	50.3	44.3	30.5	48.3	42.3	28.5	33.8	27.8	30.8	24.8	20.1	20.1
150	24.7	24.7	47.7	41.1	23.0	45.7	39.4	21.0	3.3	24.0	27.3	21.0	18.8	18.8
200	29.0	29.0	45.8	39.8	16.8	43.8	37.8	14.8	27.8	21.8	24.8	18.8	18.0	18.0
250	32.8	32.8	44.3	38.3	11.5	42.3	36.3	9.5	25.8	19.8	22.8	16.8	17.3	17.3
300	36.4	*	43.1	*	6.7	41.1	*	4.7	24.3	*	21.3	*	16.8	*
350	39.8	*	42.1	*	2.3	40.1	*	0.3	22.9	*	19.9	*	16.3	*
400	43.0	*	41.3	*	NA	39.3	*	NA	21.8	*	18.8	*	15.9	*
450	46.0	*	40.5	*	NA	38.5	*	NA	20.7	*	17.7	*	15.5	*
500	48.9	*	39.8	*	NA	37.8	*	NA	19.8	*	16.8	*	15.2	*
550	51.8	*	39.2	*	NA	37.2	*	NA	19.0	*	16.0	*	14.9	*
600	54.5	*	38.6	*	NA	36.6	*	NA	18.2	*	15.2	*	14.7	*

Values are expressed in dB/100M @ 20°C

*Frequencies beyond the TIA requirements are for information only

ACR & PSACR not specified in ANSI-TIA-568-C.2

Data subject to change without notice.



ATS-423CMP-6NS-*

Category 6 CMP Plenum Cable No Spline
(400 MHz)



CHARACTERISTICS	
Installation Temperature:	0 to 60°C (32° to 140°F)
Mutual Capacitance:	5.6 nF/100 m max
DC Resistance/Unbalance:	≤ 5% max
Propagation Delay Skew:	≤ 45 ns/100 m
Impedance 1.0 to 100 MHz:	100 Ohms ± 15%
Nominal Velocity of Propagation (NVP):	73.0%

APPLICATIONS
IEEE 802.3ab: 1000 BASE-T (Gigabit Ethernet)
IEEE 802.3u: 100 BASE-T (Fast Ethernet)
IEEE 802.3i: 10 BASE-T (Ethernet)
ANSI/TIA-854: 1000 BASE-TX
155 Mb/s, 1.2 Gb/s ATM
ANSI X3.263: 100 Mb/s
IEEE 802.3at DTE Power (PoE), IEEE 802.3at (PoE)
Broadband and Baseband Analog Video
Digital Video

CONSTRUCTION
4 Twisted Pair Cable
Pair Insulation: Fluorinated Ethylene Propylene (FEP) and Polyolefin (PO)
24 AWG Solid Bare Copper with Ripcord
Outer Jacket: Plenum Low Smoke Flame Retardant PVC
Cable O.D. 5.6 mm (0.22 in)
*Jacket Colors: Blue (B), White (W), Yellow (Y), Gray (G)

APPROVALS
UL 444, ISO 9001:2008
UL, cUL, CSA, FT6, NFPA: 262 CMP, ETL
RoHS Compliant Directive 2011/65/EC (RoHS2)
NEC/CEC: CMP
UL Listed CM, CMP
ANSI/TIA-568-C.2
IEC 61156-5 (Edition 2.0)
ISO/IEC 11801:2011 Ed.2.2 (Class E)
ANSI/TIA-862-A (Building Automation)
ICES/CEC Type CMP (UL 262)
ICEA S-102-700 (Category 6)

PAIR IDENTIFICATION	
Pair 1	Blue, Blue/White
Pair 2	Orange, Orange/White
Pair 3	Green, Green/White
Pair 4	Brown, Brown/White

PACKAGING	
1000 Foot Easy-Pull Fast Pack Box:	Wt. 25Lbs. (11.340kg)
Reel-in-a-Box (ATS-423CMR-6NS-RIB-*):	Wt. 26 Lbs. (11.793kg)

TRANSMISSION PERFORMANCE TABLE														
Frequency	IL ATRAS	IL	NEXT ATRAS	NEXT	ACR ATRAS	PSNEXT ATRAS	PSNEXT	PSACR ATRAS	ACRF ATRAS	ACRF	PSACRF ATRAS	PSACRF	RL ATRAS	RL
MHz	Max	TIA Max	Min	TIA Min	Min	Min	TIA Min	Min	Min	TIA Min	Min	TIA Min	Min	TIA Min
1	2.0	2.0	74.3	74.3	72.3	72.3	72.3	70.3	67.8	67.8	64.8	64.8	20.0	20.0
4	3.8	3.8	65.3	65.3	61.5	63.3	63.3	59.5	55.8	55.8	52.8	52.8	23.0	23.0
8	5.3	5.3	60.8	60.8	55.4	58.8	58.8	53.4	49.7	49.7	46.7	46.7	24.5	24.5
10	6.0	6.0	59.3	59.3	53.4	57.3	57.3	51.4	47.8	47.8	44.8	44.8	25.0	25.0
16	7.6	7.6	56.2	56.2	48.7	54.3	54.3	46.7	43.7	43.7	40.7	40.7	25.0	25.0
20	8.5	8.5	54.8	54.8	46.3	52.8	52.8	44.3	41.8	41.8	38.8	38.8	25.0	25.0
25	9.5	9.5	53.3	53.3	43.8	51.3	51.3	41.8	39.8	39.8	36.8	36.8	24.3	24.3
31.25	10.7	10.7	51.9	51.9	41.2	49.9	49.9	39.2	37.9	37.9	34.9	34.9	23.6	23.6
62.5	15.4	15.4	47.4	47.4	32.0	45.4	45.4	30.0	31.9	31.9	28.9	28.9	21.5	21.5
100	19.8	19.8	44.3	44.3	24.5	42.3	42.3	22.5	27.8	27.8	24.8	24.8	20.1	20.1
150	24.7	24.7	41.7	41.7	17.0	39.7	39.7	15.0	24.3	24.3	21.3	21.3	18.9	18.9
200	29.0	29.0	39.8	39.8	10.8	37.8	37.8	8.8	21.8	21.8	18.8	18.8	18.0	18.0
250	32.8	32.0	38.3	38.3	5.5	36.3	36.3	3.5	19.8	19.8	16.8	16.8	17.3	17.3
300	36.4	*	37.1	*	*	35.1	*	*	18.3	*	15.3	*	16.8	*
350	39.8	*	36.1	*	*	34.1	*	*	16.9	*	13.9	*	16.3	*
400	43.0	*	35.3	*	*	33.3	*	*	15.8	*	12.8	*	15.9	*

Values are expressed in dB/100M @ 20°C

* Frequencies beyond the TIA requirements are for information only

*ACR & PSACR not specified in ANSI-TIA-568-C.2

Data subject to change without notice.

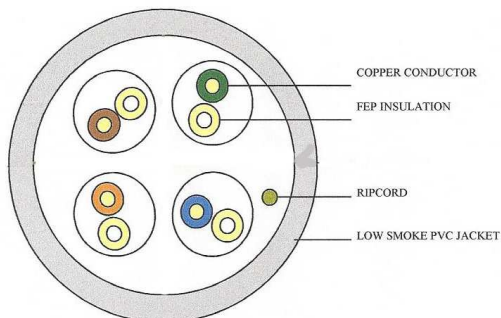
ATRAC
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Fax: 704-966-0325



"Building Reliable Results"



ATS-423CMR-6NS-*

Category 6 CMR Non-Plenum Cable No Spline (400 MHz)



CHARACTERISTICS	
Installation Temperature:	0 to 60°C (32° to 140°F)
Mutual Capacitance:	5.6 nF/100 m max
DC Resistance/Unbalance:	≤ 5% max
Propagation Delay Skew:	≤ 45 ns/100 m
Impedance 1.0 to 100 MHz:	100 Ohms ± 15%
Nominal Velocity of Propagation (NVP):	68.3%

APPLICATIONS
IEEE 802.3ab: 1000 BASE-T (Gigabit Ethernet)
IEEE 802.3u: 100 BASE-T (Fast Ethernet)
IEEE 802.3i: 10 BASE-T (Ethernet)
ANSI/TIA-854: 1000 BASE-TX
155 Mb/s, 1.2 Gb/s ATM
ANSI X3.263: 100 Mb/s
IEEE 802.3at DTE Power (PoE), IEEE 802.3at (PoE)
Broadband and Baseband Analog Video
Digital Video

CONSTRUCTION	
4 Twisted Pair Cable	
Pair Insulation: Polyolefin (PO)	
24 AWG Solid Bare Copper with Ripcord	
Outer Jacket: Non-Plenum Low Smoke Flame Retardant PVC	
Cable O.D. 5.4 mm (0.21 in)	
*Jacket Colors: Blue (B), White (W), Yellow (Y), Gray (G)	

APPROVALS
UL 444, ISO 9001:2008
UL cUL, CSA, FT4, NFPA UL 1666 CMR, ETL
RoHS Compliant Directive 2011/65/EC (RoHS2)
NEC/CEC:CMR
UL Listed CM, CMR
ANSI/TIA-568-C.2
IEC 61156-5 (Edition 2.0)
ISO/IEC 11801:2011 Ed.2.2 (Class E)
ANSI/TIA-862-A (Building Automation)
ICES/CEC Type CMR (UL 1666)
ICEA S-102-700 (Category 6)

PAIR IDENTIFICATION	
Pair 1	Blue, Blue/White
Pair 2	Orange, Orange/White
Pair 3	Green, Green/White
Pair 4	Brown, Brown/White

PACKAGING	
1000 Foot Easy-Pull Fast Pack Box:	Wt. 24Lbs. (10.886kg)
Reel-in-a-Box (ATS-423CMR-6NS-RIB-*):	Wt. 25 Lbs. (11.340kg)

TRANSMISSION PERFORMANCE TABLE														
Frequency	IL ATRAS	IL	NEXT ATRAS	NEXT	ACR ATRAS	PSNEXT ATRAS	PSNEXT	PSACR ATRAS	ACRF ATRAS	ACRF	PSACRF ATRAS	PSACRF	RL ATRAS	RL
MHz	Max	TIA Max	Min	TIA Min	Min	Min	TIA Min	Min	Min	TIA Min	Min	TIA Min	Min	TIA Min
1	2.0	2.0	74.3	74.3	72.3	72.3	72.3	70.3	67.8	67.8	64.8	64.8	20.0	20.0
4	3.8	3.8	65.3	65.3	61.5	63.3	63.3	59.5	55.8	55.8	52.8	52.8	23.0	23.0
8	5.3	5.3	60.8	60.8	55.4	58.8	58.8	53.4	49.7	49.7	46.7	46.7	24.5	24.5
10	6.0	6.0	59.3	59.3	53.4	57.3	57.3	51.4	47.8	47.8	44.8	44.8	25.0	25.0
16	7.6	7.6	56.2	56.2	48.7	54.3	54.3	46.7	43.7	43.7	40.7	40.7	25.0	25.0
20	8.5	8.5	54.8	54.8	46.3	52.8	52.8	44.3	41.8	41.8	38.8	38.8	25.0	25.0
25	9.5	9.5	53.3	53.3	43.8	51.3	51.3	41.8	39.8	39.8	36.8	36.8	24.3	24.3
31.25	10.7	10.7	51.9	51.9	41.2	49.9	49.9	39.2	37.9	37.9	34.9	34.9	23.6	23.6
62.5	15.4	15.4	47.4	47.4	32.0	45.4	45.4	30.0	31.9	31.9	28.9	28.9	21.5	21.5
100	19.8	19.8	44.3	44.3	24.5	42.3	42.3	22.5	27.8	27.8	24.8	24.8	20.1	20.1
150	24.7	24.7	41.7	41.7	17.0	39.7	39.7	15.0	24.3	24.3	21.3	21.3	18.9	18.9
200	29.0	29.0	39.8	39.8	10.8	37.8	37.8	8.8	21.8	21.8	18.8	18.8	18.0	18.0
250	32.8	32.0	38.3	38.3	5.5	36.3	36.3	3.5	19.8	19.8	16.8	16.8	17.3	17.3
300	36.4	*	37.1	*	*	35.1	*	*	18.3	*	15.3	*	16.8	*
350	39.8	*	36.1	*	*	34.1	*	*	16.9	*	13.9	*	16.3	*
400	43.0	*	35.3	*	*	33.3	*	*	15.8	*	12.8	*	15.9	*

Values are expressed in dB/100M @ 20°C

* Frequencies beyond the TIA requirements are for information only

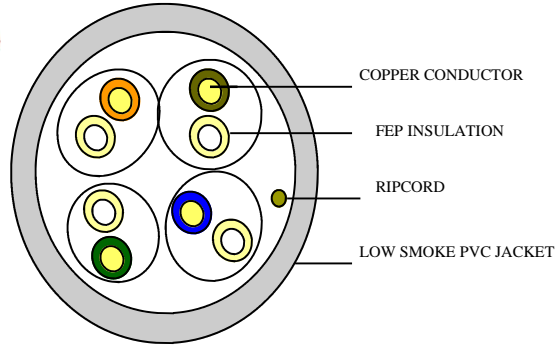
ACR & PSACR not specified in ANSI-TIA-568-C.2

Data subject to change without notice.

ATRACS
Atras Network Communications
www.atrasusa.com
sales@atrasusa.com



Phone: 704-966-0324
Fax: 704-966-0325



ATS-424CMP-5E-*

Category 5E CMP Plenum Cable
(350 MHz)



CHARACTERISTICS	
Installation Temperature:	0 to 60°C (32° to 140°F)
Mutual Capacitance:	5.6 nF/100 m max
DC Resistance/Unbalance:	≤ 5% max
Propagation Delay Skew:	≤ 45 ns/100 m
Impedance 1.0 to 100 MHz:	100 Ohms ± 15%
Nominal Velocity of Propagation (NVP):	70.0%

APPLICATIONS
IEEE 802.3ab: 1000 BASE-T (Gigabit Ethernet)
IEEE 802.3u: 100 BASE-T (Fast Ethernet)
IEEE 802.3i: 10 BASE-T (Ethernet)
ANSI/TIA-854: 1000 BASE-TX
155 Mb/s, 1.2 Gb/s ATM
ANSI X3.263: 100 Mb/s
IEEE 802.3at DTE Power (PoE), IEEE 802.3at (PoE Plus)
Broadband and Baseband Analog Video
Digital Video

CONSTRUCTION	
4 Twisted Pair Cable	
Pair Insulation: Fluorinated Ethylene Propylene (FEP) and Polyolefin (PO)	
24 AWG Solid Bare Copper with Ripcord	
Outer Jacket: Plenum Low Smoke Flame Retardant PVC	
Cable O.D. 4.5 mm (0.177 in)	
*Jacket Colors: Blue (B), White (W), Yellow (Y), Gray (G)	

APPROVALS
UL 444, ISO 9001:2008
UL, cUL, CSA, FT6, NFPA 262 CMP, ETL
RoHS Compliant Directive 2011/65/EC (RoHS2)
NEC/CEC: CMP
UL Listed CM, CMP
ANSI/TIA-568-C.2
ISO/IEC 11801:2011 Ed.2.2 (Class E)
ANSI/TIA-862-A (Building Automation)
ICES/CEC Type CMP (UL 262)
IEC 61156-5 (Edition 2.0)

PAIR IDENTIFICATION	
Pair 1	Blue, Blue/White
Pair 2	Orange, Orange/White
Pair 3	Green, Green/White
Pair 4	Brown, Brown/White

PACKAGING	
1000 Foot Easy-Pull Fast Pack Box:	Wt. 21 Lbs. (9.525 kg)

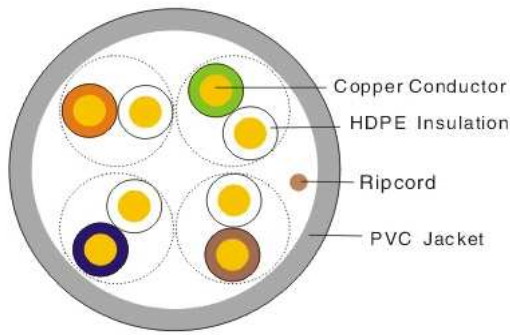
TRANSMISSION PERFORMANCE TABLE														
Frequency	IL ATRAS	IL	NEXT ATRAS	NEXT	ACR ATRAS	PSNEXT ATRAS	PSNEXT	PSACR ATRAS	ACRF ATRAS	ACRF	PSACRF ATRAS	PSACRF	RL ATRAS	RL
MHz	Max	TIA Max	Min	TIA Min	Min	Min	TIA Min	Min	Min	TIA Min	Min	TIA Min	Min	TIA Min
1	2.0	2.0	65.3	65.3	63.3	62.3	62.3	60.3	63.8	63.8	60.8	60.8	20.0	20.0
4	4.0	4.1	56.3	56.3	52.3	53.3	53.3	49.3	51.8	51.8	48.8	48.8	23.0	23.0
8	5.8	5.8	51.8	51.8	46.0	48.8	48.8	43.0	45.7	45.7	42.7	42.7	24.5	24.5
10	6.5	6.5	50.3	50.3	43.8	47.3	47.3	40.8	43.8	43.8	40.8	40.8	25.0	25.0
16	8.2	8.2	47.2	47.2	39.0	44.3	44.3	36.1	39.7	39.7	36.7	36.7	25.0	25.0
20	9.3	9.2	45.8	45.8	36.5	42.8	42.8	31.5	37.8	37.8	34.8	34.8	25.0	25.0
25	10.4	10.4	44.3	44.3	34.9	41.3	41.3	30.9	35.8	35.8	32.8	32.8	24.3	24.3
31.25	11.7	11.7	42.9	42.9	31.2	39.9	39.9	28.2	33.9	33.9	30.9	30.9	23.6	23.6
62.5	17.0	17.0	38.4	38.4	21.4	35.4	35.4	18.4	27.9	27.9	24.9	24.9	21.5	21.5
100	22.0	22.0	35.3	35.3	13.3	32.3	32.3	10.3	23.8	23.8	20.8	20.8	20.1	20.1
150	27.5	*	32.7	*	*	29.7	*	*	20.3	*	17.3	*	18.9	*
200	32.4	*	30.8	*	*	27.8	*	*	17.8	*	14.8	*	18.0	*
250	36.8	*	29.3	*	*	26.3	*	*	15.8	*	12.8	*	17.3	*
300	41.0	*	28.1	*	*	25.1	*	*	14.3	*	11.3	*	16.7	*
350	44.8	*	27.1	*	*	24.1	*	*	12.9	*	10.0	*	16.3	*

Values are expressed in dB/100M @ 20°C *Frequencies beyond the TIA requirements are for information only ACR & PSACR not specified in ANSI-TIA-568-C.2

Data subject to change without notice.



"Building Reliable Results"



ATS-424CMR-5E-*

Category 5E CMR Non-Plenum Cable
(350 MHz)



CHARACTERISTICS	
Installation Temperature:	0 to 60°C (32° to 140°F)
Mutual Capacitance:	5.6 nF/100 m max
DC Resistance/Unbalance:	≤ 5% max
Propagation Delay Skew:	≤ 45 ns/100 m
Impedance 1.0 to 100 MHz:	100 Ohms ± 15%
Nominal Velocity of Propagation (NVP):	71.4%

APPLICATIONS
IEEE 802.3ab: 1000 BASE-T (Gigabit Ethernet)
IEEE 802.3u: 100 BASE-T (Fast Ethernet)
IEEE 802.3i: 10 BASE-T (Ethernet)
ANSI/TIA-854: 1000 BASE-TX
155 Mb/s, 1.2 Gb/s ATM
ANSI X3.263: 100 Mb/s
IEEE 802.3at DTE Power (PoE), IEEE 802.3at (PoE Plus)
Broadband and Baseband Analog Video
Digital Video

CONSTRUCTION
4 Twisted Pair Cable
Pair Insulation: Polyolefin (PO)
24 AWG Solid Bare Copper with Ripcord
Outer Jacket: Non-Plenum Low Smoke Flame Retardant PVC
Cable O.D. 4.8 mm (0.188 in)
*Jacket Colors: Blue (B), White (W), Yellow (Y), Gray (G)

APPROVALS
UL 444, ISO 9001:2008
UL, cUL, CSA, FT6, NFPA 262 CMP, ETL
RoHS Compliant Directive 2011/65/EC (RoHS2)
NEC/CEC: CMP
UL Listed CM, CMP
ANSI/TIA-568-C.2
ISO/IEC 11801:2011 Ed.2.2 (Class E)
ANSI/TIA-862-A (Building Automation)
ICES/CEC Type CMP (UL 262)
IEC 61156-5 (Edition 2.0)

PAIR IDENTIFICATION	
Pair 1	Blue, Blue/White
Pair 2	Orange, Orange/White
Pair 3	Green, Green/White
Pair 4	Brown, Brown/White

PACKAGING	
1000 Foot Easy-Pull Fast Pack Box:	Wt. 20 Lbs. (9.0718 kg)

TRANSMISSION PERFORMANCE TABLE														
Frequency	IL ATRAS	IL	NEXT ATRAS	NEXT	ACR ATRAS	PSNEXT ATRAS	PSNEXT	PSACR ATRAS	ACRF ATRAS	ACRF	PSACRF ATRAS	PSACRF	RL ATRAS	RL
MHz	Max	TIA Max	Min	TIA Min	Min	Min	TIA Min	Min	Min	TIA Min	Min	TIA Min	Min	TIA Min
1	2.0	2.0	65.3	65.3	63.3	62.3	62.3	60.3	63.8	63.8	60.8	60.8	20.0	20.0
4	4.0	4.1	56.3	56.3	52.3	53.3	53.3	49.3	51.8	51.8	48.8	48.8	23.0	23.0
8	5.8	5.8	51.8	51.8	46.0	48.8	48.8	43.0	45.7	45.7	42.7	42.7	24.5	24.5
10	6.5	6.5	50.3	50.3	43.8	47.3	47.3	40.8	43.8	43.8	40.8	40.8	25.0	25.0
16	8.2	8.2	47.2	47.2	39.0	44.3	44.3	36.1	39.7	39.7	36.7	36.7	25.0	25.0
20	9.3	9.2	45.8	45.8	36.5	42.8	42.8	31.5	37.8	37.8	34.8	34.8	25.0	25.0
25	10.4	10.4	44.3	44.3	34.9	41.3	41.3	30.9	35.8	35.8	32.8	32.8	24.3	24.3
31.25	11.7	11.7	42.9	42.9	31.2	39.9	39.9	28.2	33.9	33.9	30.9	30.9	23.6	23.6
62.5	17.0	17.0	38.4	38.4	21.4	35.4	35.4	18.4	27.9	27.9	24.9	24.9	21.5	21.5
100	22.0	22.0	35.3	35.3	13.3	32.3	32.3	10.3	23.8	23.8	20.8	20.8	20.1	20.1
150	27.5	*	32.7	*	*	29.7	*	*	20.3	*	17.3	*	18.9	*
200	32.4	*	30.8	*	*	27.8	*	*	17.8	*	14.8	*	18.0	*
250	36.8	*	29.3	*	*	26.3	*	*	15.8	*	12.8	*	17.3	*
300	41.0	*	28.1	*	*	25.1	*	*	14.3	*	11.3	*	16.7	*
350	44.8	*	27.1	*	*	24.1	*	*	12.9	*	10.0	*	16.3	*

Values are expressed in dB/100M @ 20°C

*Frequencies beyond the TIA requirements are for information only

ACR & PSACR not specified in ANSI-TIA-568-C.2

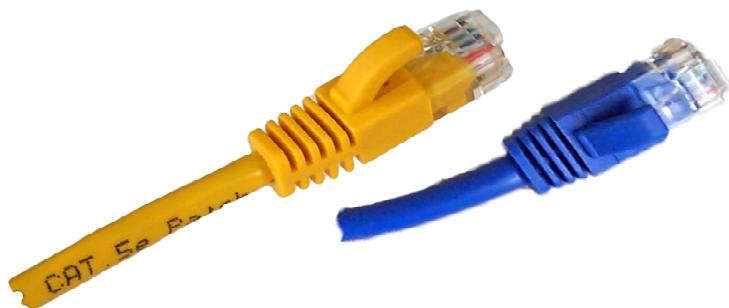
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ATRAC
Atras Network Communications
www.atrasusa.com
sales@atrasusa.com



Phone: 704-966-0324

Fax: 704-966-0325



PART NUMBER	DESCRIPTION
ATS-PC8*6IN-L5EB	6 Inch Category 5E Patch Cord with Boots
ATS-PC8*01F-L5EB	1 Ft Category 5E Patch Cord with Boots
ATS-PC8*02F-L5EB	2 Ft Category 5E Patch Cord with Boots
ATS-PC8*03F-L5EB	3 Ft Category 5E Patch Cord with Boots
ATS-PC8*05F-L5EB	5 Ft Category 5E Patch Cord with Boots
ATS-PC8*07F-L5EB	7 Ft Category 5E Patch Cord with Boots
ATS-PC8*10F-L5EB	10 Ft Category 5E Patch Cord with Boots
ATS-PC8*14F-L5EB	14 Ft Category 5E Patch Cord with Boots
ATS-PC8*25F-L5EB	25 Ft Category 5E Patch Cord with Boots
ATS-PC8*50F-L5EB	50 Ft Category 5E Patch Cord with Boots
ATS-PC8*6IN-L6B	6 Inch Category 6 Patch Cord with Boots
ATS-PC8*01F-L6B	1 Ft Category 6 Patch Cord with Boots
ATS-PC8*02F-L6B	2 Ft Category 6 Patch Cord with Boots
ATS-PC8*03F-L6B	3 Ft Category 6 Patch Cord with Boots
ATS-PC8*05F-L6B	5 Ft Category 6 Patch Cord with Boots
ATS-PC8*07F-L6B	7 Ft Category 6 Patch Cord with Boots
ATS-PC8*10F-L6B	10 Ft Category 6 Patch Cord with Boots
ATS-PC8*14F-L6B	14 Ft Category 6 Patch Cord with Boots
ATS-PC8*25F-L6B	25 Ft Category 6 Patch Cord with Boots
ATS-PC8*50F-L6B	50 Ft Category 6 Patch Cord with Boots

HIGH QUALITY FLEXIBLE NETWORK CABLE WITH SNAGLESS UNIVERSAL BOOT FOR CONNECTING TWO NETWORK PORTS OR DEVICES. ETHERNET NETWORKS RUN OVER TWISTED PAIR (UTP) CABLE USING PATCH CORDS FOR CROSS CONNECTIONS BETWEEN WALLS AND COMPUTERS, PATCH PANELS AND EQUIPMENT, OR BETWEEN TWO PIECES OF EQUIPMENT.

Engineered to meet or exceed all ANSI/TIA-568-C.2 Category 5E & Category 6 mechanical and transmission performance specifications, wired to T568A/T568B wiring scheme Cords accommodate T568A and T568B wiring applications

Colors Available *
(L) Blue (W) White (Y) Yellow (A) Gray (B) Black

www.atrasusa.com 1-704-966-0324		
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ATRAS LOADED PATCH PANELS

Engineered to meet or exceed all ANSI/TIA-568-C.2 Category 5E & Category 6 mechanical and transmission performance specifications

Wired to T568A/T568B wiring scheme

Panels include port numbering with write-on labeling areas

ATS-C5E-12P/66
ATS-C6-12P/66

12 Port Vertical Patch Panel with
89D Bracket in Cat5E or Cat6



ATS-C5E-24P
ATS-C6-24P

24 Port Horizontal Patch Panel
Cat5E or Cat6



ATS-C5E-48P
ATS-C6-48P

48 Port Horizontal Patch Panel
Cat5E or Cat6



ATRAS BLANK PATCH PANELS

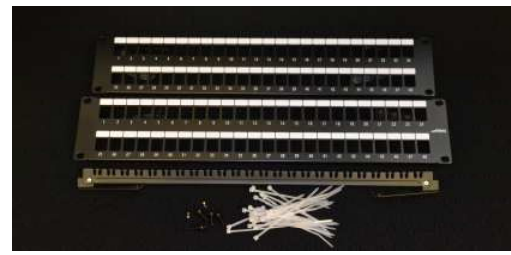
Engineered to accept individual outlets that meet or exceed all ANSI/TIA-568-C.2 Category 5E & Category 6 mechanical and transmission performance specifications

Wired to T568A/T568B wiring scheme

Panels include port numbering with write-on Labeling areas



ATS-BLANK-24P
24 Port Empty Patch Panel












ATS-BLANK-48P
48 Port Empty Patch Panel

Jacks and Termination Tool

<p>Category 5E High Density</p>		<p>ATS-5EHD-*</p>
<p>Meet or exceed all ANSI/TIA-568C.2 Category 5E mechanical and transmission performance specifications, wired to T568A/T568B wiring scheme ETL Verified for component or channel compliance Feature color-coding for both T568A and T568B wiring schemes Meet FCC Part 68, UL, cUL Listed Includes See-thru Dust Covers in Blue (B) White (W) Orange (O) Ivory (I) Almond (A) Black (E) Yellow (Y) Red (R) Green (T) Gray (G)</p>		
<p>Category 6</p>		<p>ATS-6-*</p>
<p>Meet or exceed all ANSI/TIA-568C.2 Category 6 mechanical and transmission performance specifications, wired to T568A/T568B wiring scheme ETL Verified for component or channel compliance Feature color-coding for both T568A and T568B wiring schemes Meet FCC Part 68, UL, cUL Listed Includes See-thru Dust Covers in Blue (B) White (W) Orange (O) Ivory (I) Almond (A) Black (E) Yellow (Y) Red (R) Green (T) Gray (G)</p>		
<p>Voice Grade USOC RJ11</p>		<p>ATS-VG6-*</p>
<p>6 position / 6 conductor Meet FCC Part 68 UL, cUL Listed ETL Verified for component and channel compliance Includes See-thru Dust Covers in White (W) Ivory (I) Almond (A)</p>		
<p>ST Fiber Optic Insert</p>		<p>ATS-STFO-*</p>
<p>High-impact, flame-resistant plastic UL, cUL Listed Smooth Finish in White (W) Ivory (I) Almond (A)</p>		
<p>Blank Insert</p>		<p>ATS-BI-*</p>
<p>High-impact, flame-resistant plastic Blank Inserts used for filling unused positions UL, cUL Listed Smooth Finish in White (W) Ivory (I) Almond (A) Sold in Packages of 10</p>		
<p>Termination Tool</p>		<p>ATS-TLCAT5-6TT</p>
<p>Works with Atras CAT 5E and CAT 6 jacks</p>		

Inserts and Connectors

S-Video Insert with IDC termination		ATS-213-SV-4-*
UL, cUL Listed Smooth Finish High-impact, flame-resistant plastic Available in White (W) Ivory (I) Almond (A)		
Binding Post Insert with Black or Red Stripe		ATS-BPBS-* (Black Stripe SHOWN) ATS-BPRS-* (Red Stripe Available)
Smooth Finish High-impact, flame-resistant plastic UL,cUL Listed Available in White (W) Ivory (I) Almond (A)		
F-Type Coax Connector		ATS-FC-*
Smooth Finish High-impact, flame-resistant plastic UL,cUL Listed Available in White (W) Ivory (I) Almond (A)		
BNC (Female) Coax Connector		ATS-213BNCF-*
Smooth Finish High-impact, flame-resistant plastic UL,cUL Listed Available in White (W) Ivory (I) Almond (A)		
ATS-RCABR-* (Red insulator) ATS-RCABW-* (White Insulator) ATS-RCABY-* (Yellow Insulator)		ATS-RCARIDC-* (Red insulator) ATS-RCAWIDC-* (White Insulator) ATS-RCAYIDC-* (Yellow Insulator)
RCA Speaker Jack with Bulkhead Receptacle		RCA Speaker Jack with IDC Receptacle
Smooth Finish High-impact, flame-resistant plastic UL,cUL Listed Available in White (W) Ivory (I) Almond (A)		
RG Compression Connector		ATS-DIG-*
Compression Connectors Increase Audio/Video Signal Integrity RG6 = Blue ring RG6Q = Green ring RG59 = Red ring		 

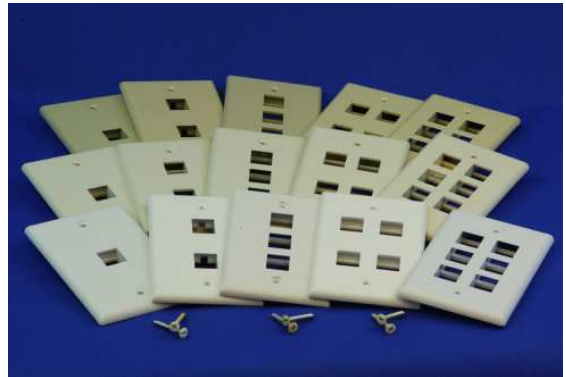
Faceplates

PART NUMBER	DESCRIPTION
ATS-SFP-1- *	1-port Modular Faceplate
ATS-SFP-2- *	2-port Modular Faceplate
ATS-SFP-3- *	3-port Modular Faceplate
ATS-SFP-4- *	4-port Modular Faceplate
ATS-SFP-6- *	6-port Modular Faceplate
ATS-SFP-12- *	12-port Modular Faceplate

Smooth Finish
 Painted Screws
 Available in 1,2,3,4,6, and 12-ports
 for a variety of configurations
 UL, cUL Listed

Colors Available: (W) White (I) Ivory (A) Almond (G) Gray

Modular Faceplates



PART NUMBER	DESCRIPTION
ATS-DFP-1-*	Decorator Style Single Gang Faceplate
ATS-DFP-2-*	Decorator Style Dual Gang Faceplate

Smooth Finish
 Painted Screws
 Available in 1 & 2 gang styles
 Inserts available in 1,2,3,4, and 6 ports
 for a variety of configurations
 UL, cUL Listed

Colors Available: (W) White (I) Ivory

Decorator Style Faceplates



PART NUMBER	DESCRIPTION
ATS-KIDS-#-*	Decorator Style Insert #1-6 Ports

Smooth Finish
 Painted Screws
 Available in 1 & 2 gang styles
 Inserts available in 1,2,3,4, and 6 ports
 for a variety of configurations
 UL, cUL Listed

Colors Available: (W) White (I) Ivory

Decorator Faceplate Inserts



Identification Faceplates

PART NUMBER	DESCRIPTION
ATS-IDFP-1- *	1-port ID Faceplate
ATS-IDFP-2- *	2-port ID Faceplate
ATS-IDFP-3- *	3-port ID Faceplate
ATS-IDFP-4- *	4-port ID Faceplate
ATS-IDFP-6- *	6-port ID Faceplate

Smooth Finish
 Painted Screws
 Available in 1, 2, 3, 4, and 6 ports
 for a variety of configurations
 UL, cUL Listed

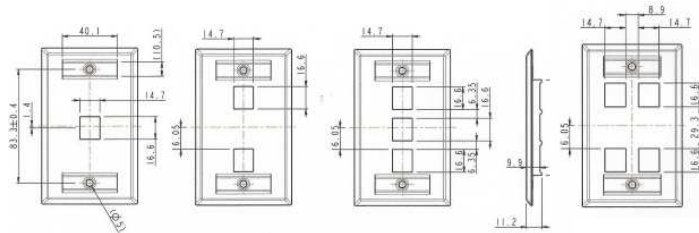
Colors Available: (W) White (I) Ivory



Stainless Steel Identification Faceplates

PART NUMBER	DESCRIPTION
ATS-IDSSFP-1P	1-port ID Faceplate
ATS-IDSSFP-2P	2-port ID Faceplate
ATS-IDSSFP-3P	3-port ID Faceplate
ATS-IDSSFP-4P	4-port ID Faceplate

Brush Stainless Steel Finish
 Identification Wall Plates
 Single gang
 Designation windows accept labels
 Designation label covers screw
 Available in 1, 2, 3 and 4 ports for a variety of configurations
 UL, cUL Listed



Surface Mount Box		ATS-SMH-#-*
<p>High-impact, flame-resistant plastic UL, cUL Listed Smooth Finish Available in 1, 2, and 4 port configurations in White (W) Ivory (I)</p>		

Miscellaneous Wall Plates	
PART NUMBER	DESCRIPTION
ATS-6SFO-W	Wall Plate with one F81 connector (White)
ATS-HMWP-W	Combination Wall Plate with one RJ11 6 position/4 conductor Jack & F81 connector (White)
<p>UL, cUL listed Smooth finish Screw terminals Painted Screws</p>	

Splitters and Wiring Blocks

Splitters

ATS-ADS-102V
ATS-ADS-103V
ATS-ADS-104V
ATS-ADS-106V
ATS-ADS-108V

1 GHz Vertical Splitter
2-Way, 3-Way, 4-Way, 6-Way, 8-Way

ATS-AF-81
Premium F81 Splice Connector

ATS-ADGB-81
Premium Ground Block

ATS-ADS-2
ATS-ADS-3
ATS-ADS-4

1 GHz Horizontal Splitter
2-Way, 3-Way and 4-Way

ATRAS SPLITTERS

Nickel plated sealed die cast housing
Conical seizure mechanisms
Integral ground block
Premium RF specifications
Bandwidth (5 MHz-1 GHz)



High Definition Multimedia Interface Cables

PART NUMBER	DESCRIPTION
ATS-HDMI-6-BLK	6 FT length HDMI to HDMI Cable
ATS-HDMI-12-BLK	12 FT length HDMI to HDMI Cable

ATRAS HDMI CABLES

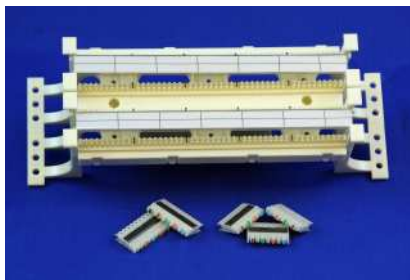
Dual Shielding reduces Interference, Noise, and Distortion
Aluminum-polyester Foil Shield and 95% Copper Braid Shield
High Quality Gold Plated Connectors
Flexible Black PVC Jacket
Balanced Cable for Optimum Performance
3 Year Warranty



Wiring Blocks

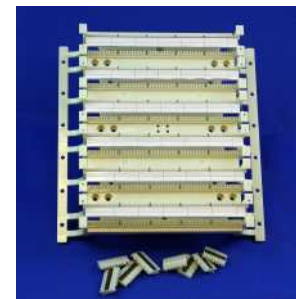
ATS-110B-B100FT

100 Pair 110 Block with legs
C4 Clips (20 pieces) C5 Clips (4 Pieces)



ATS-110B-B300FT

300 Pair 110 Block with legs
C4 Clips (60 pieces) C5 Clips (12 Pieces)



ATRAS WIRING BLOCKS

Designed to exceed Category 5E specifications
Blocks accommodate a range of conductor sizes
from 22 to 26 Awg

Warranty

Manufacturer's Warranty

Subject to the limitations and conditions set forth herein, ATRAS™ NETCOM warrants solely to the end user that the ATRAS™ structured cabling system consisting of cable and connectivity hardware products installed at the Installation Site:

1. Will be free from product defects in materials and workmanship.
2. Will exceed applicable ANSI/TIA and ISO/IEC specifications in effect at the time of installation.
3. Will support any current or future application which is designed for transmission over a Structured Cabling System as defined by the above referenced standards and the ATRAS™ data sheet in effect at the time of installation.
4. Will provide the margin of positive Power-Sum ACR over the standard specifications in effect for the applicable ATRAS™ System at the time of installation.

Duration of the ATRAS™ Warranty is **twenty-five (25) years** from the date of installation registration. An ATRAS™ Structured Cabling System is defined as a system properly constructed with ATRAS™ approved products in accordance with referenced standards, meeting specified link/channel performance and topological (distance and connection) limits.

Warranty Conditions

For this warranty to be valid:

1. The System must have been registered with ATRAS™ NETCOM prior to installation.
2. All System components must be new (never used) and approved ATRAS™ System components; modifications to product void the warranty.
3. The System components must have been in accordance with the ATRAS™ installation specifications, the requirements of the above mentioned technical standards.
4. All installation records must be updated to reflect any maintenance, movement, additions or changes, etc. ATRAS™ will not be responsible for moves, additions or changes performed by parties other than a qualified installer.
5. Any warranty claim must be made to the original qualified installer, or to ATRAS™ NETCOM, within 5 days of discovery of the alleged defect in the System products.
6. The warranty is non-transferable and applies only to the original Customer.

In the event of a warranty claim

1. Proper system design, installation, use and maintenance must be demonstrated to ATRAS™ NETCOM.
2. System documentation including all test reports and maintenance records, all of which are the responsibility of the end-user, must be made available by the end-user upon request.
3. The end-user shall provide free access to the system to both the original qualified installer and ATRAS™ NETCOM.



This warranty does not cover

1. The installation and maintenance of any other non-performing portions of the end-user's System.
2. Products not supplied directly by ATRAS™ NETCOM or through channels approved by the ATRAS™ NETCOM.
3. Defects resulting from a non-ATRAS™ work area, patching or equipment cords, or from moves, additions and changes by parties other than a qualified installer.
4. Defects resulting from a non-compliant or improper system design, installation, use, repair, or any system alterations, misuse, neglect, accident or abuse.

Warranty Limitations

IN NO EVENT SHALL ATRAS™ NETCOM BE LIABLE, WHETHER IN CONTRACT, TORT, OR ANY OTHER BASIS, FOR ANY DAMAGES SUSTAINED BY CUSTOMER OR ANY OTHER PERSON, ARISING FROM OR RELATED TO LOSS OF USE, FAILURE OR INTERRUPTION IN THE OPERATION OF ANY PRODUCT, OR DELAY IN MAINTENANCE, OR FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT OR SPECIAL DAMAGES OR LIABILITIES; OR FOR LOST DATA OR OTHER FINANCIAL LOSS; OR FOR ANY OTHER CLAIMS OR DAMAGES OF WHATEVER NATURE IN EXCESS OF THE PURCHASE PRICE OF THE NON-CONFORMING PRODUCTS IN ANY OF THE FORGOING EVENTS ARISING OUT OF OR IN CONNECTION WITH THE SALE, LEASE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE OR INTERRUPTION OF ANY CABLE PRODUCT OR OF THE ATRAS™ NETCOM STRUCTURED CABLING SYSTEM INSTALLED BY A QUALIFIED INSTALLER. THE FORGOING SHALL SURVIVE THE FAILURE OF AN EXCLUSIVE REMEDY.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, EXPRESSED, IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ONLY AND PERTAINS TO VALID REGISTERED PROJECTS.

Warranty Remedy

ATRAS™ NETCOM will utilize test and verification equipment to validate warranty claims.

End-user may be subject to expenses associated with invalid warranty claims.

For valid warranty claims, ATRAS™ NETCOM will at its option, use Certified Installers of its choosing; replace or repair any qualified product found to be non-compliant; and cover reasonable cost of labor to affect necessary work.

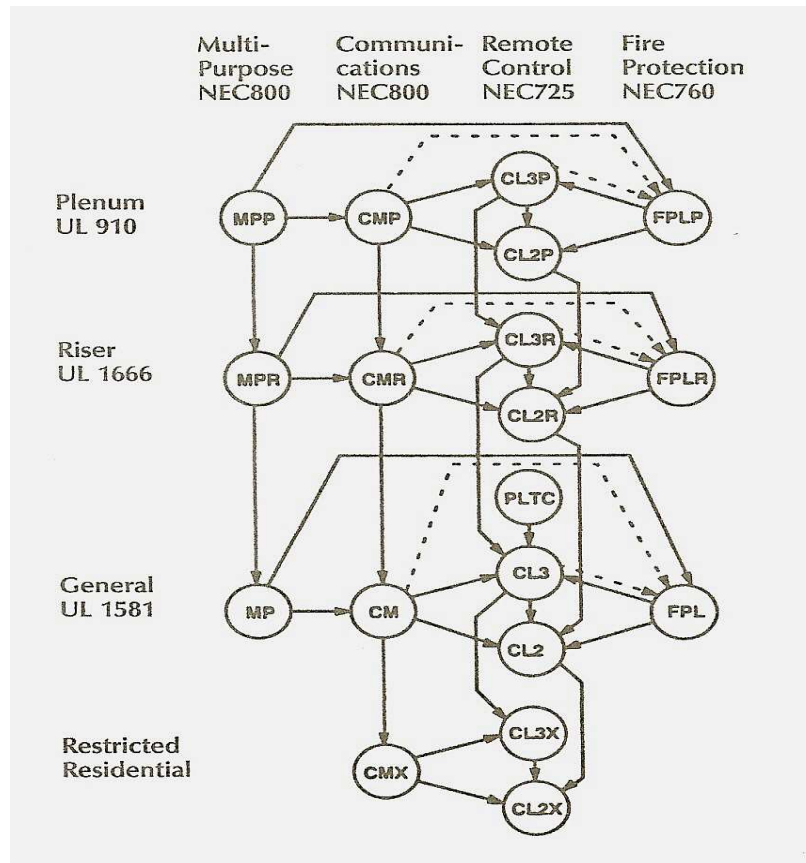


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National Electric Code



Underwriters Laboratories requires that cables be listed and carry all the necessary cable markings.

In each of the NEC Articles under consideration there are 4 important factors:

1. The application governs the cable requirement. For example, Article 760 covers fire protective signaling systems
2. The code of importance is the one currently approved and in use within the local municipality or state.
3. The local Inspector/Fire Marshall is the ultimate authority to approve or disapprove a cable for the particular installation in accordance with the code in effect.
4. The substitute cable must meet the required electrical characteristics.