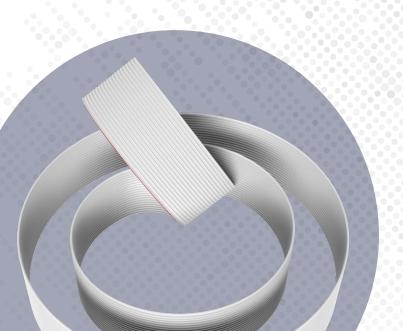
**Proterial Cable America Inc.** 

Flat Ribbon Cable Catalog



## **Proterial Cable America**

Since 1986, Proterial Cable America has been developing technologically advanced copper and fiber optic communication cables. Our dedication to engineering perfection is evident in the consistent quality and performance of all the cable products we manufacture.

Through the development of high performance cable products, such as the world's first UL verified 10-gigabit Ethernet Category 6A cable, Proterial Cable has established itself as a leader in the industry. These products and the others found in this catalog are the result of Proterial Cable's relentless desire to manufacture the finest communication cables in the world. After using our products, we are confident you will agree.

#### **Trademarks Referenced In This Catalog:**

Power+™, Plus™, XS™, Supra™, Supra 10G™, Supra 10G-XE™ are trademarks of Proterial Cable America, Inc.

DryBit® and Nanocore® are registered trademarks of Proterial Cable America, Inc.

MTP® is a registered trademarks of US Conec Ltd.



## **Table of Contents**

#### Introduction

**PCA Overview** Other PCA Products

### **Specialty Flat Ribbon Cables**

.100" PVC Stranded Wide Pitch Ribbon Cables - Tin Topcoated

.100" PVC Stranded Wide Pitch Ribbon Cables - Tinned

.050" PVC & SR-PVC Stranded Flat Ribbon Cable

.050" Rainbow Ribbon Cable

Shielded Flat Ribbon Cable



## Quality Products Made in America.

#### **Proterial's Manufacturing Advantage**

We never stop innovating. Whether it's installing the very latest in cable manufacturing technology, or designing and building custom equipment for a one of a kind cable, we have the resources to maintain a technological edge over the competition. We're ISO certified 9001-2015, so you can be confident that all of our processes and materials are properly tracked and recorded.



#### **On-Site Copper Extrusion**

The Manchester, New Hampshire facility is one of a handful of cable manufacturing facilities in the U.S. that performs on-site drawing of copper. When drawing copper, PCA starts with 13 AWG solid copper conductor on custom built deploying devices, called Stems. The copper is pulled into drawing mills where it is reduced to the appropriate size, conditioned in what is called the annealing process, then insulated with the appropriate insulation. This allows us to better control the performance of the primary conductors and maximize overall cable performance.

#### **Fully Compliant.**

All the products manufactured within our facility are compliant to EU Directive 2011/65/ EU, also known as the Restriction of Hazardous Substances (RoHS3) which regulates the use of harmful materials such as lead, cadmium and mercury.

#### **Packaging Engineered for Easy-Payout**

Our easy-payout boxes for Category 5e and Category 6 cables were designed with direct input and feedback from users.

Our boxes feature dual reinforced handles and have proven to be as durable as the cable they contain.





## We Take the Worry out of Warranty.

#### **The Open System Architecture Solution**

Open System Architecture (OSA) from Proterial Cable America (PCA) provides world class performance using virtually any combination of PCA verified cables with verified connective hardware in the design of the network. The ANSI/TIA-568.2-D standard specifies the performance requirements of all network components and defines interoperability base-line limits to ensure that combinations of cable with connectivity will meet or exceed the system's intended application.

By employing a Proterial OSA solution, end users have the freedom to choose from a wide range of quality connectivity products that best meet their specific needs and be confident that the chosen solution will support all applications designed to operate over that solution and be backed by our industry-leading lifetime warranty\*.

- Our open system architecture provides for standards-based verifiable cable performance
- · Enables a range of connectivity options
- · Opens up competitive solution offerings
- · Delivers substantial benefits to the end user

#### **Cable Quality Matters.**

In cable based communication links, the cable determines the ultimate performance of that link, not the connectors.

With a growing list of applications for category cables, many of them critical to a facility's operations, selecting a high quality cable from an established manufacturer is imperitive. Additionally, with an increase in counterfeit and unestablished brands flooding the market, it is important to protect your investment by sourcing only through trusted distribution channels.

- · Cable is the highest cost component of passive infrastructures
- Cable determines margin of performance headroom in the link and channel
- · Cable vendor should be the lead warranty provider

\*Lifetime Warranty available only through Proterial certified installers.

#### Beyond-The-Link Building Systems



#### We offer a Lifetime Warranty

#### We are pleased to offer a lifetime warranty on all certified installations.

The lifetime warranty, which is only available through Proterial Cable Certified Installers, offers a product performance and application assurance warranty.

We guarantee that the solution will pass the appropriate category test for the life of the network as well as support all applications designed to operate over that solution. The warranty covers both the cables and all the connective hardware directly attached to our cable. This also includes any labor that could be associated with a warranty claim.

#### **Our Warranty Systems Feature:**

- Compliance to TIA and ISO Cabling Standards
- Lifetime Product Performance Warranty
- Lifetime Applications Support Warranty
- Open Architecture Connectivity Specification
- One Point-of-Contact for all Warranty Features

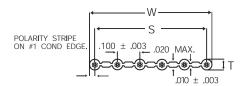


## .100" PVC Stranded Wide **Pitch Ribbon Cable - TTC**

#### **PRODUCT HIGHLIGHTS**

- Rounded edge construction
- · Easily zips down from conductor
- · Dual zip construction between each web
- Multiple gauges available to meet your specific needs
- · Wide range of conductor sizes available
- UL Listing: 2651
- UL Voltage Rating: 300V
- UL Temp: 105° C

Physical construction description: Flat planar cable using 24 or 26 AWG stranded tinned topcoated copper, extruded in PVC on .100" centers. Conductor number one is marked with a polarity stripe. Standard cable color is



	26 AWG	24 AWG
Series #	20028	20027
Conductor	26 AWG (7/34)	24 AWG (7/32)
	Tinned Topcoated	Tinned Topcoated
Insulation	PVC	PVC
Conductor Resistance	43.1	26.5
Ω/1000' Nom. @ 20°C		
Capacitance pF/ft.	12	13
Impedance G-S-G Ω's	150	130
Propagation Delay ns/ft.	1.35	1.35
Pitch Tolerance	± 0.003"	± 0.003"
Thickness (T)	0.039 ± .002"	0.044 ± .002"
Width (W)	(S)pan + 0.045"	(S)pan + 0.050"
Standard Put-ups (Feet)	100 & 500	100 & 500
Polarity Stripe Color	Blue	Black

No. of Cond.	Span "S"	26 AWG	à	24 AWG		
		Configuration	Part. No.	Configuration	Part. No.	
6	0.500 ± 0.007"	A2607-62-06TTC	20028-006	A2407-62-06TTC	20027-006	
8	0.700 ± 0.007"	A2607-62-08TTC	20028-008	-	-	
10	0.900 ± 0.007"	A2607-62-10TTC	20028-010	A2407-62-10TTC	20027-010	
12	1.100 ± 0.009"	A2607-62-12TTC	20028-012	A2407-62-12TTC	20027-012	
15	1.400 ± 0.009"	A2607-62-15TTC	20028-015	-	-	
20	1.900 ± 0.009"	A2607-62-20TTC	20028-020	A2407-62-20TTC	20027-020	
28	2.700 ± 0.011"	A2607-62-28TTC	20028-028	A2407-62-28TTC	20027-028	



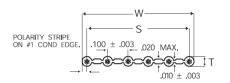
## .100" PVC Stranded Wide Pitch Ribbon Cable - T



#### **PRODUCT HIGHLIGHTS**

- Rounded edge construction
- Dual zip construction between each web
- Multiple gauges available to meet your specific needs
- Wide range of conductor sizes available
- UL Listing: 2651
- UL Voltage Rating: 300V
- UL Temp: 105° C

Physical construction description: Flat planar cable using 22, 24, or 26 AWG stranded tinned copper, extruded in PVC on .100" centers. Conductor number one is marked with a polarity stripe. Standard cable color is gray.



	26 AWG	24 AWG	22 AWG
Series #	23232	23224	23225
Conductor	26 AWG (7/34)	24 AWG (7/32)	22 AWG (7/30)
	Tinned	Tinned	Tinned
Insulation	PVC	PVC	PVC
Conductor Resistance	43.1	25.7	15.0
Ω/1000' Nom. @ 20°C			
Capacitance pF/ft.	12	13	12
Impedance G-S-G Ω's	150	130	115
Propagation Delay ns/ft.	1.35	1.35	1.35
Pitch Tolerance	± 0.003"	± 0.003"	± 0.003"
Thickness (T)	0.039 ± .002"	0.044 ± .002"	0.050 ± .003"
Width (W)	(S)pan + 0.045"	(S)pan + 0.050"	(S)pan + 0.056"
Polarity Stripe Color	Blue	Black	Red

No. of	Span "S"	26 AWG		24 AWG	ì	22 AWG		
Cond.		Configuration	Part. No.	Configuration	Part. No.	Configuration	Part. No.	
6	0.500 ± 0.007"	A2607-62-06T	23232-006	A2407-62-06T	23224-006	-	-	
7	0.600 ± 0.007"	-	-	A2407-62-07T	23224-007	A2207-62-07T	23225-007	
8	0.700 ± 0.007"	A2607-62-08T	23232-008	A2407-62-08T	23224-008	-	-	
10	0.900 ± 0.007"	A2607-62-10T	23232-010	-	-	-	-	
11	1.000 ± 0.009"	A2607-62-11T	23232-011	-	-	-	-	
12	1.100 ± 0.009"	A2607-62-12T	23232-012	A2407-62-12T	23224-012	-	-	
14	1.300 ± 0.009"	-	-	-	-	A2207-62-14T	23225-014	
15	1.400 ± 0.009"	-	-	A2407-62-15T	23224-015	-	-	
16	1.500 ± 0.009"	-	-	-	-	A2207-62-16T	23225-016	
18	1.700 ± 0.009"	A2607-62-18T	23232-018	-	-	-	-	
20	1.900 ± 0.009"	-	-	-	-	A2207-62-20T	23225-020	
28	2.700 ± 0.011"	A2607-62-28T	23232-028	-	-	-	-	



# 

#### **PRODUCT HIGHLIGHTS**

- Rounded edge construction
- Dual zip construction between each web
- Multiple gauges available to meet your specific needs
- Wide range of conductor sizes available
- UL Listing: 2651
- UL Voltage Rating: 300V
- UL Temp: 105° C
- CSA listing: AWM I A/B FT-1
- CSA Volatage Rating: 300V
- CSA Temp: 105 °C

Series No.	Conductor AWG	Insulation	Conductor Capacit Resistance		tance	Imped	lance		agation elay
	Stranding Coating		ΩMft. @ 20°C	pF/ft. (G-S)	pF/ ft.	(G-S-G) (Ohms) SE	(G-S) (Ohms) Diff.	ns/ ft.	Skew ns/ft. (Max.)
23100	28 AWG 7/36 Tinned	PVC	67.5	8.90	14.0	105	145	1.40	.035

Physical Construction Description: Flat planar cable using 28 AWG (7/36) tinned copper, extruded in PVC. Conductor number one is marked with a red polarity stripe. Cable is printed with UL/CSA approvals. Standard color is gray.

Part No.	Configuration	Insulation	No. of Conductors	Width "W"	Pitch Tolerance	Standard Put-Ups
23100-005	A2807-1-5T AWM/CSA	PVC	5	0.250" +/-0.010"	± 0.002"	500'
23100-008	A2807-1-8T AWM/CSA	PVC	8	0.400"+/-0.010"	± 0.002"	500'
23100-009	A2807-1-9T AWM/CSA	PVC	9	0.450" +/-0.010"	± 0.002"	100' & 500'
23100-010	A2807-1-10T AWM/CSA	PVC	10	0.500" +/-0.010"	± 0.002"	100' & 500'
23100-012	A2807-1-12T AWM/CSA	PVC	12	0.600" +/-0.010"	± 0.002"	400'
23100-014	A2807-1-14T AWM/CSA	PVC	14	0.700" +/-0.010"	± 0.002"	100' & 500'
23100-015	A2807-1-15T AWM/CSA	PVC	15	0.750" +/-0.010"	± 0.002"	100'
23100-016	A2807-1-16T AWM/CSA	PVC	16	0.800" +/-0.012"	± 0.002"	100' & 500'
23100-020	A2807-1-20T AWM/CSA	PVC	20	1.000" +/-0.012"	± 0.002"	100' & 500'
23100-024	A2807-1-24T AWM/CSA	PVC	24	1.200" +/-0.012"	± 0.002"	500'
23100-025	A2807-1-25T AWM/CSA	PVC	25	1.250" +/-0.012"	± 0.002"	100'
23100-026	A2807-1-26T AWM/CSA	PVC	26	1.300" +/-0.012"	± 0.002"	100' & 500'
23100-034	A2807-1-34T AWM/CSA	PVC	34	1.700" +/-0.016"	± 0.002"	100'
23100-040	A2807-1-40T AWM/CSA	PVC	40	2.000" +/-0.016"	± 0.002"	100' & 500'
23100-050	A2807-1-50T AWM/CSA	PVC	50	2.500" +/-0.018"	± 0.002"	100' & 500'
23100-064	A2807-1-64T AWM/CSA	PVC	64	3.200" +/-0.018"	± 0.002"	500'
23100-072	A2807-1-72T AWM/CSA	PVC	72	3.600" +/-0.018"	± 0.002"	100'



## .050" Rainbow Ribbon **Cable**

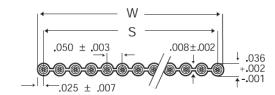


#### **PRODUCT HIGHLIGHTS**

- Individually color coded conductors for easy identification.
- Fully extruded construction.
- No lamination tapes to impede termination.
- Zip construction.
- Symmetrically round conductors for improved IDC termination.
- UL/CSA approved (cable is printed UL/CSA).
- UL Voltage Rating: 300V
- UL Temp: 105° C
- · UL Style: 20932
- CSA Listing: AWM I A/B FT-1
- CSA Voltage Rating: 300V
- CSA Temp: 105° C

Physical Construction Description: Ribbon cable is constructed with 28 AWG (7/36) tinned copper. Each conductor is first extruded with SR-PVC and then all conductors are pulled in parallel and extruded in clear PVC. No lamination tapes that can impede IDC termination are used. Color code for this cable is Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White, Black and repeat.





Series	Conductor	Insulation	Conductor	Capac	Capacitance		Impedance		Propagation Delay	
No.	AWG		Resistance							
	Stranding		Ω/Mft. @	pF/ft.	pF/ft.	(G-S-G)	(G-S)	ns/ft.	Skew ns/ft.	
	Coating		20°C	(G-S)	(G-S-G)	(Ohms) SE	(Ohms) Diff.		(Max.)	
23026	28 AWG	SR-PVC	67.5	7.48	14.05	98	135	1.45	0.086	
	7/36 Tinned	PVC								

Part No.	PCA Configuration	Insulation	No. of	Width	Span "S"	Pitch	Standard
			Conductors	"W"		Tolerance	Put-Ups
23026-010	A2807-30-10T	SR-PVC/PVC	10	0.500"	0.450" ± .006"	± .003"	100'
23026-014	A2807-30-14T	SR-PVC/PVC	14	0.700"	0.650" ± .006"	± .003"	100'
23026-016	A2807-30-16T	SR-PVC/PVC	16	0.800"	0.750" ± .008"	± .003"	100'
23026-024	A2807-30-24T	SR-PVC/PVC	24	1.200"	1.150" ± .008"	± .003"	100'
23026-026	A2807-30-26T	SR-PVC/PVC	26	1.300"	1.250" ± .008"	± .003"	100'
23026-034	A2807-30-34T	SR-PVC/PVC	34	1.700"	1.650" ± .008"	± .003"	100'
23026-040	A2807-30-40T	SR-PVC/PVC	40	2.000"	1.950" ± .011"	± .003"	100'
23026-050	A2807-30-50T	SR-PVC/PVC	50	2.500"	2.450" ± .011"	± .003"	100'
23026-060	A2807-30-60T	SR-PVC/PVC	60	3.000"	2.950" ± .011"	± .003"	100'
23026-064	A2807-30-64T	SR-PVC/PVC	64	3.200"	3.150" ± .011"	± .003"	100'

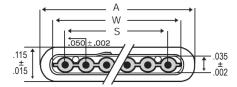


# PROTERIAL Shielded Flat Ribbon Cable



- Shielded flat ribbon cable for EMI/ RFI/ESD considerations.
- Two drain wires for insured grounding.
- Cable core features our popular .050" pitch ribbon cable for ease of termination with IDC connectors.
- Choose from a wide selection of conductor counts.
- Flat design offers alternative to round cable in tight routing areas.
- UL Listing: Type CM
- UL AWM Style 2912
- UL Voltage Rating: 150V
- UL Temp: 105° C
- Available in .025" pitch ribbon cable using PVC.

Physical Construction Description: Using 23100 for the core of this shielded cable, two 28 AWG (7/36 TC) drain wires are pulled in to ensure contact with the Aluminum/Polyester tape (AL side in). The shielded core is jacketed with Black PVC.



Conductor	Insulation	Drain	Shield	Conductor Resistence Ω/ Mft. @ 20°C	Capacitance (G-S-G) pF/ft.	Impedance (G-S-G) (Ohms)	Jacket
28 AWG 7/36 Tinned	PVC	2) 28 AWG 7/36	.00135" AL/ PET	67.5	14	105	Black PVC

Part No.	Configuration	No. of Conductors	Overall "A"	Width "W"	Span "S"	Standard Put-Ups
23012-009	A2807-7-9T	9	0.520" ±.035"	0.450"	0.400"	100'
23012-010	A2807-7-10T	10	0.570" ±.035"	0.500"	0.450"	100'
23012-014	A2807-7-14T	14	0.770" ± .035"	0.700"	0.650"	100'
23012-016	A2807-7-16T	16	0.870" ± .035"	0.800"	0.750	100'
23012-020	A2807-7-20T	20	1.070" ± .035"	1.000	0.950"	100'
23012-025	A2807-7-25T	25	1.320" ± .035"	1.250"	1.200"	100'
23012-026	A2807-7-26T	26	1.370" ± .035"	1.300"	1.250"	100'

