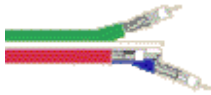


## 1281S3 Coax - Banana Peel® Unjacketed Bundles Mini Hi-Res Component Video



### Description:

25 AWG solid .018" tinned copper conductors, foam HDPE insulation, Duobond® foil plus a tinned copper interlocked serve shield (100% coverage), inner PVC jacket.

### Usage (Overall)

**Suitable Applications:** RGB, VGA, SVGA, XGA, SXGA, UXGA, HDTV, LCD, Plasma, Digital Signage, Component Video, Video Mult, Animation, Special effects

### Physical Characteristics (Overall)

#### Conductor

**AWG:**

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
3	25	Solid	TC - Tinned Copper	.018

#### Insulation

**Insulation Material:**

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	.074

#### Inner Shield

**Inner Shield Material:**

Layer #	Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
1	Bonded Duofoil®	Tape	Aluminum Foil-Polyester Tape Lightly bonded to dielectric	100
2		Interlocked Serve	TC - Tinned Copper	95

#### Inner Jacket

**Inner Jacket Material:**

Inner Jacket Material	Nom. Dia. (in.)
PVC - Polyvinyl Chloride	.114

**Inner Jacket Color Code Chart:**

Number	Color
1	Red
2	Green
3	Blue

#### Outer Shield

**Outer Shield Material:**

Outer Shield Material
Unshielded

#### Outer Jacket

**Outer Jacket Material:**

Outer Jacket Material
Unjacketed

#### Overall Cabling

**Overall Cabling Fillers:** Bonded Spline  
**Overall Nominal Diameter:** 0.246 in.

### Mechanical Characteristics (Overall)

## 1281S3 Coax - Banana Peel® Unjacketed Bundles Mini Hi-Res Component Video

Operating Temperature Range:	-40°C To +75°C
UL Temperature Rating:	60°C
Non-UL Temperature Rating:	75°C
Bulk Cable Weight:	44 lbs/1000 ft.
Max. Recommended Pulling Tension:	90 lbs.
Min. Bend Radius (Each Coax):	1.100 in.
Min. Bend Radius (Overall):	2.500 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
EU CE Mark:	No
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	02/24/2005
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

#### Flame Test

UL Flame Test:	UL1666 Vertical Shaft
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#### Suitability

Suitability - Indoor:	Yes - Risers
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#### Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	1282S3, 1277P

### Electrical Characteristics (Overall)

#### Nom. Characteristic Impedance:

Impedance (Ohm)
75

#### Nom. Inductance:

Inductance (µH/ft)
.087

#### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
17.0

#### Nominal Velocity of Propagation:

VP (%)
80

#### Nominal Delay:

Delay (ns/ft)
1.24

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
34

#### Nom. Inner Shield DC Resistance:

## 1281S3 Coax - Banana Peel® Unjacketed Bundles Mini Hi-Res Component Video

**DCR @ 20°C (Ohm/1000 ft)**

5.4

**Nom. Attenuation:**

Freq. (MHz)	Attenuation (dB/100 ft.)
1	0.52
5	1.17
50	3.7
100	4.9
200	6.7
400	9.5
750	13.4
900	15.0
1000	15.8
3000	31.2

**Max. Operating Voltage - UL:**

**Voltage**

300 V RMS

**Max. Operating Voltage - Non-UL:**

**Voltage**

300 V RMS

**Minimum Return Loss:**

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Min. RL (dB)
		5	850	20

**Sweep Test**

**Sweep Testing:** 5 - 850 MHz

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1281S3 0001000	1,000 FT	27.000 LB	NONE	C	3C25 RGB
1281S3 000500	500 FT	14.500 LB	NONE	C	3C25 RGB

**Notes:**

C = CRATE REEL PUT-UP.

## Introduction

Compare Belden® Coaxial cables and the companies who produce them and you will discover the obvious: Belden has no equal. That's because Belden Coaxial cables are time-tested for performance. Performance that guarantees outstanding value. Belden guarantees this level of performance because every cable is tested with equipment that simulates every known environmental and electrical performance condition. As a result, Belden Coaxial cable can be counted on for positive, reliable and trouble-free operation.

Belden Coaxial cables are engineered in a wide selection of sizes and materials, with each offering the benefits needed for physical, electrical and cost-requirement applications. Cable choices include broadband, standard analog, precision video for analog and digital, bundled RGB, high-flex S-Video, video triax, conformable coax and more.

Most of our Coax cables are available from stock. Many of these are available off the shelf from distributors. If you have a new or unusual application or you cannot find a Coax cable in this catalog section that meets your technical requirements, contact Technical Support at 1-800-BELDEN-1.

### Coax Cable Shielding

Belden's line of coaxial cable features a wide range of shielding configurations. Among the options are:

#### Duofoil®

Duofoil is a shield in which metallic foil is applied to both sides of a supporting polyester or polypropylene film.

#### Duobond®

Duobond is essentially the same construction as Duofoil (a laminated shielding tape consisting of aluminum foil/plastic film/aluminum foil), but with an extra layer of heat-sensitive adhesive bonding the foil shield to the dielectric core. This foil shield provides 100% coverage and insures maximum shield protection.

#### Duobond II (Foil/Braid)

Combines all the features of Duobond with an outer braid applied for greater protection against interference and to increase the overall tensile strength.

#### Duobond III (Tri-Shield)

Duobond III utilizes the Duobond II design (foil/braid) plus an additional surrounding layer of Duofoil. This extra layer of foil improves shield reliability and provides an additional interference barrier.

#### Duobond IV (Quad Shield)

Duobond IV adds a second layer of braid to the Tri-Shield design (foil/braid/foil/braid). This extra layer of braid shield provides improved strength and durability.

#### Duobond Plus®

Features the same foil/braid/foil construction as Duobond II but with the addition of a shorting fold in the outermost foil. This fold prevents a slot opening from being created in the shield, thereby preventing signal egress or ingress. This unique feature creates the effect of a solid metal conduit, which improves the high-frequency performance of the cable. (See the Technical Information section of this catalog for a more detailed explanation of "shorting folds.")

### Coax Cable Packaging

As with most Belden cables, several Coax cable products are available in Belden's UnReel® cardboard dispenser. The UnReel is a unique packaging dispensing system developed by Belden to save time, cut costs and labor, and eliminate the need for dereeling equipment. Lightweight and more economical than conventional drums or reels, UnReel dispensers have pre-punched handles for easy, individual transport as well as rectangular boxes for easy pallet delivery and storage. UnReel cable pays out smoothly and evenly with no kinking, twisting, or backlashing. It also rolls out 60% faster than conventionally packaged cable.

### Corresponding Literature

#### Technical Bulletins

TB-65: *Digital Studio Cable Guide*

# RG Coaxial and Triaxial Reference Guide

## Bundled Coax

Cable Designation	Part No.	No. of Coax	Page No.	Spec. Reference	Conductor Stranding/ Dia. & Type* (DCR/1000 Ft.)	Insulation Material (OD in.)	Shield Type Tape/Braid (DCR/1000 Ft.)	Jacket Material (OD in.)	Nom. Weight (Lbs./Ft.)	Nom. Imp. (Ω)	Nom. Cap. (pF/Ft.)	Suggested Operating Temp. Range (°C) UL	Max. Oper. Voltage (RMS) Non UL
<b>Bundled Coax</b>													
Bundled Coax Sub-Miniature RGB	<b>1520A</b>	3	6.47	Belden	7/.012" TC (100.0)	FHDPE (.056)	DF/90% TC (9.5)	PVC (.283)	.042	75	17.3	-40 to +60	300
Bundled Coax Sub-Miniature RGB	<b>1521A</b>	4	6.47	Belden	7/.012" TC (100.0)	FHDPE (.056)	DF/90% TC (9.5)	PVC (.310)	.050	75	17.3	-40 to +60	300
Bundled Coax Sub-Miniature RGB	<b>1522A</b>	5	6.47	Belden	7/.012" TC (100.0)	FHDPE (.056)	DF/90% TC (9.5)	PVC (.338)	.058	75	17.3	-40 to +60	300
Bundled Coax Miniature RGB	<b>1406B</b>	3	6.47	Belden	7/.019" BC (41.5)	FHDPE (.090)	DF/93% TC (8.6)	PVC (.388)	.064	75	17.3	-40 to +60	300
Bundled Coax Miniature RGB	<b>1407B</b>	4	6.47	Belden	7/.019" BC (41.5)	FHDPE (.090)	DF/93% TC (8.6)	PVC (.455)	.088	75	17.3	-40 to +60	300
Bundled Coax Miniature RGB	<b>1417B</b>	5	6.47	Belden	7/.019" BC (41.5)	FHDPE (.090)	DF/93% TC (8.6)	PVC (.477)	.102	75	17.3	-40 to +60	300
Bundled Coax RGB	<b>1164B</b>	3	6.48	Belden	7/.019" BC (41.5)	FHDPE (.090)	DF/93% TC (8.6)	PVC (.388)	.066	75	17.3	-40 to +60	300
Bundled Coax RGB	<b>1167B</b>	4	6.48	Belden	7/.019" BC (41.5)	FHDPE (.090)	DF/93% TC (8.6)	PVC (.455)	.090	75	17.3	-40 to +60	300
Bundled Coax RGB	<b>1418B</b>	5	6.48	Belden	7/.019" BC (41.5)	FHDPE (.090)	DF/93% TC (8.6)	PVC (.477)	.104	75	17.3	-40 to +60	300
Bundled Coax RGB	<b>1277R</b>	3	6.48	Belden	1/.018" TC (34.0)	FPFA (.074)	DB/95% TC (5.4)	PVC (.320)	.048	75	17.0	-40 to +75	300
Bundled Coax RGB	<b>1278R</b>	4	6.48	Belden	1/.018" TC (34.0)	FPFA (.074)	DB/95% TC (5.4)	PVC (.351)	.060	75	17.0	-40 to +75	300
Bundled Coax RGB	<b>1279R</b>	5	6.48	Belden	1/.018" TC (34.0)	FPFA (.074)	DB/95% TC (5.4)	PVC (.403)	.080	75	17.0	-40 to +75	300
Bundled Coax RGB	<b>1280R</b>	6	6.48	Belden	1/.018" TC (34.0)	FPFA (.074)	DB/95% TC (5.4)	PVC (.423)	.087	75	17.0	-40 to +75	300
Bundled Coax RGB Plenum	<b>1277P</b>	3	6.48	Belden	1/.018" TC (34.0)	FPFA (.074)	DB/95% TC (5.4)	PVC (.276)	.043	75	16.8	-20 to +75	300
Bundled Coax RGB Plenum	<b>1278P</b>	4	6.48	Belden	1/.018" TC (34.0)	FPFA (.074)	DB/95% TC (5.4)	PVC (.304)	.053	75	16.8	-20 to +75	300
Bundled Coax RGB Plenum	<b>1279P</b>	5	6.48	Belden	1/.018" TC (34.0)	FPFA (.074)	DB/95% TC (5.4)	PVC (.335)	.068	75	16.8	-20 to +75	300
Bundled Coax RGB Plenum	<b>1280P</b>	6	6.48	Belden	1/.018" TC (34.0)	FPFA (.074)	DB/95% TC (5.4)	PVC (.369)	.079	75	16.8	-20 to +75	300
Bundled Coax RGB BananaPeel®	<b>1281S3</b>	3	6.49	Belden	1/.018" TC (34.0)	GIFHDPE (.074)	DB/95% TC (5.4)	PVC (.246)	.031	75	17.0	-40 to +75	300
Bundled Coax RGB BananaPeel	<b>1281S4</b>	4	6.49	Belden	1/.018" TC (34.0)	GIFHDPE (.074)	DB/95% TC (5.4)	PVC (.275)	.044	75	17.0	-40 to +75	300
Bundled Coax RGB BananaPeel	<b>1281S5</b>	5	6.49	Belden	1/.018" TC (34.0)	GIFHDPE (.074)	DB/95% TC (5.4)	PVC (.308)	.055	75	17.0	-40 to +75	300
Bundled Coax RGB BananaPeel	<b>1281S6</b>	6	6.49	Belden	1/.018" TC (34.0)	GIFHDPE (.074)	DB/95% TC (5.4)	PVC (.342)	.068	75	17.0	-40 to +75	300
Bundled Coax RGB BananaPeel Plenum	<b>1282S3</b>	3	6.49	Belden	1/.018" TC (34.0)	FPFA (.075)	DB/95% TC (5.4)	FLM (.246)	.034	75	16.8	-20 to +75	300
Bundled Coax RGB BananaPeel Plenum	<b>1282S4</b>	4	6.49	Belden	1/.018" TC (34.0)	FPFA (.075)	DB/95% TC (5.4)	FLM (.275)	.049	75	16.8	-20 to +75	300
Bundled Coax RGB BananaPeel Plenum	<b>1282S5</b>	5	6.49	Belden	1/.018" TC (34.0)	FPFA (.075)	DB/95% TC (5.4)	FLM (.308)	.067	75	16.8	-20 to +75	300
Bundled Coax RGB BananaPeel Plenum	<b>1282S6</b>	6	6.49	Belden	1/.018" TC (34.0)	FPFA (.075)	DB/95% TC (5.4)	FLM (.342)	.080	75	16.8	-20 to +75	300

\*Inner conductors are entered as: number of strands/strand diameter (in inches).

See page 6.15 for key to abbreviations used in this table.

# Bundled RGB Cable

Banana Peel® Unjacketed Bundles Mini Hi-Res Component Video  
CMR and CMP Rated



Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
				Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

**Miniature • 25 AWG Solid .018" TC Conductors • Duobond® (100% Coverage) + TC Interlocked Serve Shield (95% Coverage)**

**Gas-injected Foam HDPE Insulation • PVC Jackets (Color Code: See chart below) • Center Spine • No Overall Jacket**

	<b>1281S3</b> <small>new</small>	NEC: CMR CEC: CMG	3	500 <sup>†</sup> 1000 <sup>†</sup>	152.4 304.8	17.0 31.0	7.7 14.1	25 AWG (solid) .018" TC 34.0Ω/M' 111.6Ω/km	.074	1.88	Duobond (100%) + TC Serve (95%) 5.4Ω/M' 17.7Ω/km	Single: .114 2.90 Overall: .246 6.25	75	80%	17.0	55.8	1 5 50 100 200 400 750 900 1000 3000	.52 1.2 3.7 4.9 6.7 9.5 13.4 15.0 15.8 31.2	1.7 3.8 12.1 16.1 22.0 31.2 44.0 49.2 51.8 102.4	
	<b>1281S4</b> <small>new</small>	NEC: CMR CEC: CMG	4	500 <sup>†</sup> 1000 <sup>†</sup>	152.4 304.8	23.5 44.0	10.7 20.0	same as above	.074	1.88	same as above	Single: .114 2.90 Overall: .275 6.99								
	<b>1281S5</b> <small>new</small>	NEC: CMR CEC: CMG	5*	250 <sup>†</sup> 500 <sup>†</sup> 1000 <sup>†</sup>	76.2 152.4 304.8	16.0 28.5 55.0	7.3 12.9 25.0	same as above	.074	1.88	same as above	Single: .114 2.90 Overall: .308 7.82								
	<b>1281S6</b> <small>new</small>	NEC: CMR CEC: CMG FT4	6*	500 <sup>†</sup> 1000 <sup>†</sup>	152.4 304.8	33.5 68.0	15.2 30.8	same as above	.074	1.88	same as above	Single: .114 2.90 Overall: .342 8.69								
	100% Sweep tested. 5 MHz to 850 MHz. Guaranteed Return Loss -20db max. U.S. Patent 7,049,523																			

**Plenum • FPFA • Flamarrest® Jackets (Color Code: See chart below) • Center Spine • No Overall Jacket**

	<b>1282S3</b> <small>new</small>	NEC: CMP CEC: CMP	3	500 1000	152.4 304.8	18.5 34.0	8.4 15.4	25 AWG (solid) .018" TC 34.0Ω/M' 111.6Ω/km	.075	1.91	Duobond (100%) + TC Serve (95%) 5.4Ω/M' 17.7Ω/km	Single: .114 2.90 Overall: .246 6.25	75	81%	16.8	55.1	1 5 50 100 200 400 750 1000 2250 3000	.50 1.2 3.8 5.2 7.1 10.0 14.3 16.9 25.5 33.9	1.6 3.9 12.1 17.1 23.1 32.9 47.0 55.4 83.6 111.3	
	<b>1282S4</b> <small>new</small>	NEC: CMP CEC: CMP	4	500 1000	152.4 304.8	25.5 49.0	11.6 22.2	same as above	.075	1.91	same as above	Single: .114 2.90 Overall: .275 6.99								
	<b>1282S5</b> <small>new</small>	NEC: CMP CEC: CMP	5*	250 500 1000	76.2 152.4 304.8	18.0 33.0 67.0	8.2 15.0 30.4	same as above	.075	1.91	same as above	Single: .114 2.90 Overall: .308 7.82								
	<b>1282S6</b> <small>new</small>	NEC: CMP CEC: CMP	6*	500 1000	152.4 304.8	39.5 80.0	17.9 36.3	same as above	.075	1.91	same as above	Single: .114 2.90 Overall: .342 8.69								
	100% Sweep tested. 5 MHz to 850 MHz. Guaranteed Return Loss -20db max. U.S. Patent 7,049,523																			

DCR = DC Resistance • FPFA = Foam Perfluoroalkoxy • HDPE = High-density Polyethylene • TC = Tinned Copper

<sup>†</sup>Spools are one piece, but length may vary ±10% from length shown.  
\*Also available with all Black jackets.

**Color Code Chart:**

Cond.	Color	Cond.	Color
1	Red	4	Yellow
2	Green	5	Black
3	Blue	6	White