

July 27, 2012

Re: RapidRun Component Transition – Specification Packets

In May 2012 C2G, formerly Cables To Go, began phasing in a new platform iteration to the RapidRun product line. This new line is RapidRun Multi-Format, also known as RapidRun *Orange*, and consists of a full line of runner cables, flying leads and wall plates that will be phased in over the next six to eight months. Currently, there are products within the RapidRun Multi-Format line that are replacing some products within the RapidRun PC (*Yellow*) product set. In the cases where RapidRun Multi-Format products are being introduced, the equivalent parts of the RapidRun PC line are being discontinued.

The RapidRun Multi-Format products are functional equivalents for the RapidRun PC products. The specifications are superior and compatibility with the RapidRun PC line accessories (flying leads, wall plates) is ensured through the use of specially designed adapters. Attached is a packet containing drawings and technical specifications that indicate the cable construction, pin out designs and performance characteristics between the two product lines for Runners, Flying Leads and Wall Plates.

Should you have additional questions or concerns, please contact Chris Cowlan, RapidRun Product Manager, at (937) 405-9483 or ccowlan@lastar.com.

Sincerely,



Garry Dukes
Director of Product Management
Lastar Inc., dba C2G



RapidRun[®] HD15 + 3.5mm Audio + Composite Video + Stereo Audio Flying Lead

- Color Code: Orange (for use with Multi-Format runners)
- Supports transmission of RGBHV signals (Does not support data-bit transmission), 3.5mm stereo audio, and RCA composite audio/video
- Three 28AWG coaxial cables with braided copper shielding, three 24AWG individually shielded twisted pair, and a single 24AWG pair
- Lifetime Warranty

*The specifications apply only to the raw cable used to construct the cable assemblies



Specifications: RapidRun® HD15 + 3.5mm Audio + Composite Video + Stereo Audio Flying Lead

Electrical Characteristics:

3 Coax Conductors:

Impedance:	75 ± 5Ohm
Capacitance:	71 ± 2pF/ ft nom
Velocity of Propagation	78 ± 1%
DC Resistance:	237 ± 10Ω/km
Dielectric Strength:	500VAC/1 minute min.
Insulation Resistance (500V):	10MΩ/KM
Attenuation (dB/6m):	

3 Twisted Pair Conductors

DC Resistance:	93.25Ω/m at 20°C
Dielectric Strength:	750VAC/minute min.
Insulation Resistance:	100Mohm/KM at 20°C

	Red Coax	Green Coax	Blue Coax
1MHz	0.1464	0.1376	0.1419
10MHz	0.86	0.97	0.4058
100MHz	2.98	3.23	1.259
200MHz	4.45	4.87	1.823
500MHz	6.72	7.75	3.0028
700MHz	9.95	12.01	3.64
1000MHz	13.20	17.52	4.5923

Physical Characteristics:

Voltage Rating:	30V	Approvals:	RoHS Compliant
Temperature Rating:	80°C	Warranty:	Lifetime
Temperature Range:	-25° ~ 80°C	Package Type:	Polybag
Minimum Bend Radius	90mm		

Conductor (Qty. 3):

Conductor Type:	28AWG 7/0.127 Tinned Copper
Dielectric:	Minimum Avg. Thickness: 1.57 mm Foam PE
Shield:	Spiral 90% Coverage Tinned Copper
Insulation:	Minimum Avg. Thickness: 0.23 mm PVC: (1) red, (1) blue, (1) green

VGA Connector (Qty. 1):

Connector Type:	HD15
Gender:	Male
Contact Material:	Brass, 3µm Gold Plating
Insulation:	Black PBT

Note: Pin 9 is not loaded.

3.5mm Connector (Qty. 1):

Connector Type:	3.5mm Stereo
Gender:	Male
Contact Material:	Brass, 3µm Nickel Plating
Insulation:	Black PBT

Conductor (Qty. 3 twisted pair + 2 conductors):

Conductor Type:	24AWG 7/0.2 Tinned Copper
Foil Shield:	Aluminum 100% coverage
Insulation:	Minimum Avg. Thickness: 0.23mm PVC

RCA Connector (Qty. 3):

Connector Type:	RCA
Gender:	Male
Contact Material:	Brass, 3µm Gold Plating
Insulation:	White PBT

Overall Cable:

Shield:	Aluminum Mylar Wrap – 100% Braided Shield 24/8/0.12 85% Coverage Tinned Copper
Jacket:	Minimum Avg. Thickness – 0.76mm Matte PVC Orange Heat Shrink

RapidRun Din Connector (Qty. 1):

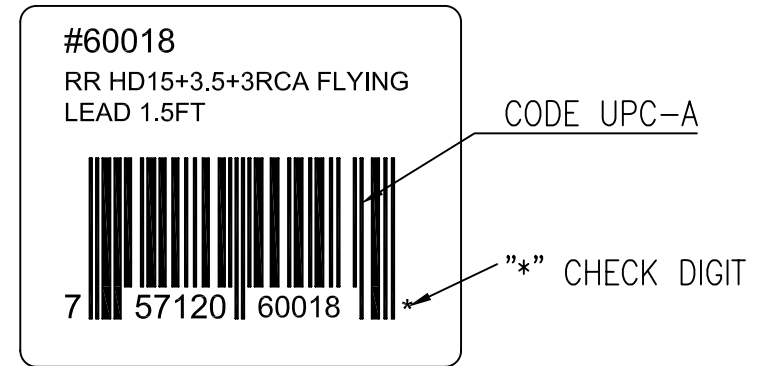
Connector Type:	DIN 15 pin
Gender:	Male
Contact Material:	Brass, 3µm Gold Plating
Insulation:	Black PBT

Item	Description	Weight (lbs)
60018	1.5 ft RapidRun HD15 + 3.5mm + Composite Video + Stereo Audio Flying Lead	0.41



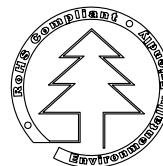
NOTES:

- ① CABLE: SEE SEC A-A.
- ② CABLE: SEE SEC B-B.
- ③ CABLE: SEE SEC C-C.
- 4. CONNECTOR: P1: DIN 15PIN MALE: SOLDER TYPE, GOLD FLASH CONTACTS, BLACK PBT INSULATION, ASSEMBLY TYPE, WITH METAL ASSEMBLY SHELL, WITHOUT KEY, NICKEL PLATED SHELL.
P2: HIGH DENSITY D-SUB 15PIN MALE: SOLDER TYPE, GOLD FLASH CONTACTS, PIN 9 UNLOADED, BLACK PBT INSULATION, UL.
P3 ~ P5: RCA PLUG, SOLDER TYPE, GOLD PLATED CONTACT, WHITE INSULATION, RIGAOXIN/#RGX-RP015.
P6: ø3.5mm STEREO PLUG, SOLDER TYPE, BLACK INSULATION, NICKEL PLATED CONTACTS AND SHELL.
- ⑤ THUMB SCREW TO BE MOLDED BLACK (CTG-001) PVC.
- ⑥ FERRITE CORE: ø19.5 X ø9.0 X 35.0MM, ASSEMBLY TYPE.
- ⑦ ORANGE HEAT SHRINK TUBE. [C1]
- 8. SHIELDED: P2: COPPER FOIL TAPE COVER PREMOLD AND 360° SOLDER TO CONNECTOR SHELL AND CABLE BRAID.
- 9. P3 ~ P6 HOOD AND SR: MOLDED PVC, COLOR SEE THE "COLOR CHART".
- 10. ALL MATERIALS ARE RoHS COMPLIANT.
- 11. TESTING: 100% ELECTRICAL TEST AT 10M OHM INSULATION RESISTANCE.
- 12. PACKING: EACH CABLE IN A RapidRun ZIP-LOCK POLY-BAG (WITH RoHS MARK).BAR CODE LABEL (WHITE BACKGROUND WITH BLACK LETTERS, SEE "DETAIL A") TO BE STAMPED ON POLY-BAG TO READ.
- 13. CABLE(1) MARKING:INCLUDE "E***** (UL) TYPE CL2 75°C 28AWG --- AWM 20276 80°C 30V VW-1 CSA AWM I/II A 80°C 30V FT1 Impact Acoustics" ALONG ITS LENGTH.
CABLE(2) MARKING:INCLUDE "E***** (UL) TYPE CL2 75°C 28AWG --- AWM 20276 80°C 30V VW-1 CSA AWM I/II A 80°C 30V FT1 " ALONG ITS LENGTH.
CABLE(3) MARKING:INCLUDE "E***** R AWM 2725 80°C 30V VW-1" ALONG ITS LENGTH.



DETAIL A

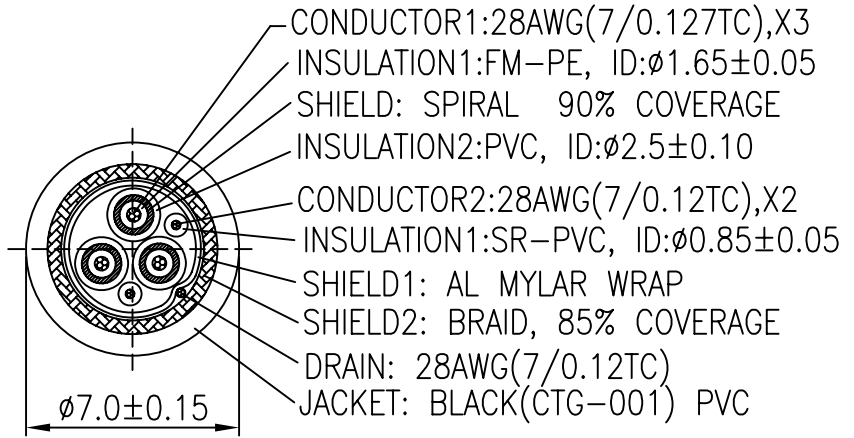
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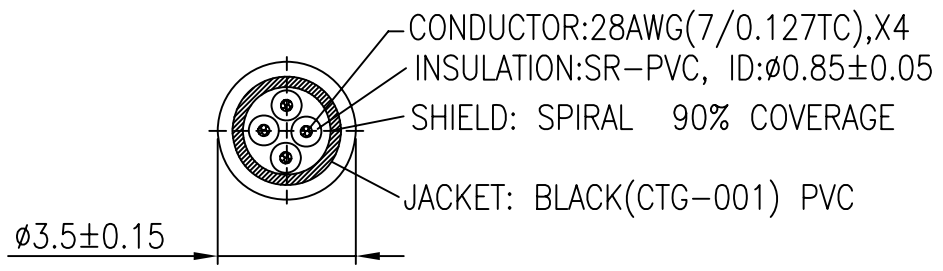
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SAMPLE APPROVED PER _____ DATE: _____ DRAWING SPECIFICATIONS																													
PROPRIETARY & CONFIDENTIAL. THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CABLES TO GO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CABLES TO GO IS PROHIBITED.																													
<table border="1"> <tr> <td></td> <td>mm</td> <td>TITLE</td> <td>DIN 15P MALE TO HDB15P MALE</td> </tr> <tr> <td>SCALE</td> <td>NONE</td> <td></td> <td>3RCA+ 3.5 MM MALE</td> </tr> <tr> <td>SHEET</td> <td>2/4</td> <td>CUS. NAME</td> <td>CTG</td> </tr> </table>		mm	TITLE	DIN 15P MALE TO HDB15P MALE	SCALE	NONE		3RCA+ 3.5 MM MALE	SHEET	2/4	CUS. NAME	CTG																	
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SCALE	NONE		3RCA+ 3.5 MM MALE																										
SHEET	2/4	CUS. NAME	CTG																										
<table border="1"> <tr> <td colspan="2">DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED</td> <td>CUS. P/N</td> <td>60018</td> </tr> <tr> <td>.X ±</td> <td>.XX ±</td> <td></td> <td></td> </tr> <tr> <td>.XXX ±</td> <td>ANGLES ±</td> <td>DRAW NO.</td> <td>P1108012-E</td> </tr> <tr> <td>REV. C</td> <td>CUS. REV</td> <td></td> <td></td> </tr> </table>	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		CUS. P/N	60018	.X ±	.XX ±			.XXX ±	ANGLES ±	DRAW NO.	P1108012-E	REV. C	CUS. REV			<table border="1"> <tr> <td>ENG.</td> <td>DATE</td> </tr> <tr> <td>Dave</td> <td>01-06-2012</td> </tr> <tr> <td>CHECKED</td> <td>DATE</td> </tr> <tr> <td>Sean</td> <td>01-06-2012</td> </tr> <tr> <td>APPROVED</td> <td>DATE</td> </tr> <tr> <td>Gary</td> <td>01-06-2012</td> </tr> </table>	ENG.	DATE	Dave	01-06-2012	CHECKED	DATE	Sean	01-06-2012	APPROVED	DATE	Gary	01-06-2012
DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		CUS. P/N	60018																										
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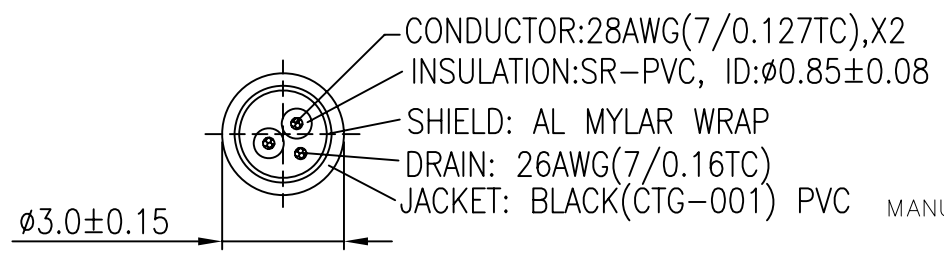
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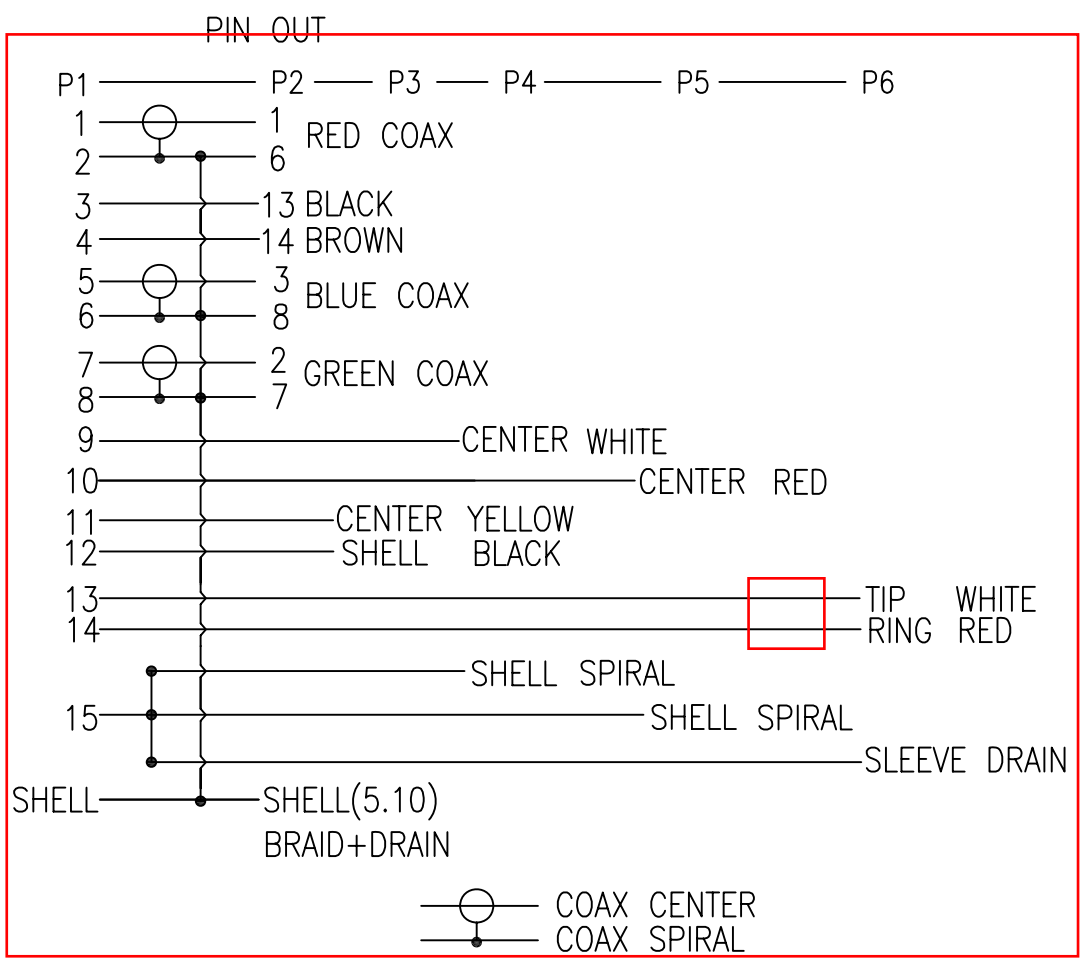
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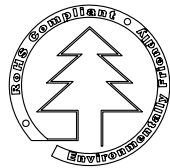
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SCALE: NTS



SEC C-C
SCALE: NTS



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SAMPLE APPROVED PER DRAWING SPECIFICATIONS _____ DATE: _____		CUS. NAME CTG		
<small>PROPRIETARY & CONFIDENTIAL. THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CABLES TO GO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CABLES TO GO IS PROHIBITED.</small>				ENG. Dave 01-06-2012 CHECKED Sean 01-06-2012 APPROVED Gary 01-06-2012
DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED .X ± .XX ± .XXX ± ANGLES ±		CUS. P/N 60018		
REV. C CUS. REV		DRAW NO. P1108012-E		
SCALE NONE SHEET 3/4		SERVICE THROUGH EVERY CONNECTION		

8 7 6 5 4 3 2 1



RapidRun[®] HD15 + 3.5mm + Composite Video + Stereo Audio Flying Lead

- Color Code: Yellow (for use with PC runners)
- Supports transmission of RGBHV signals (Does not support data-bit transmission), 3.5mm stereo audio, and RCA composite audio/video
- Three 28AWG coaxial cables with braided copper shielding, three 24AWG twisted pair, and a single 24AWG pair
- Lifetime Warranty

*The specifications apply only to the raw cable used to construct the cable assemblies

Specifications: RapidRun[®] HD15 + 3.5mm + Composite Video + Stereo Audio Flying Lead

Conductor (Qty. 3):

Conductor Type:	28AWG 7/0.127 Tinned Copper
Dielectric:	Minimum Avg. Thickness: 1.57 mm Foam PE
Shield:	Spiral 90% Coverage Tinned Copper
Insulation:	Minimum Avg. Thickness: 0.23 mm PVC: (1) red, (1) blue, (1) green

Conductor (Qty. 3 twisted pair + 2 conductors):

Conductor Type:	24AWG 7/0.2 Tinned Copper
Insulation:	Minimum Avg. Thickness: 0.23mm PVC

VGA Connector (Qty. 1):

Connector Type:	HD15
Gender:	Male
Contact Material:	Brass, 3µm Gold Plating
Insulation:	Black PBT

Note: Pin 9 is not loaded.

3.5mm Connector (Qty. 1):

Connector Type:	3.5mm Stereo
Gender:	Male
Contact Material:	Brass, 3µm Nickel Plating
Insulation:	Black PBT

RCA Connector (Qty. 3):

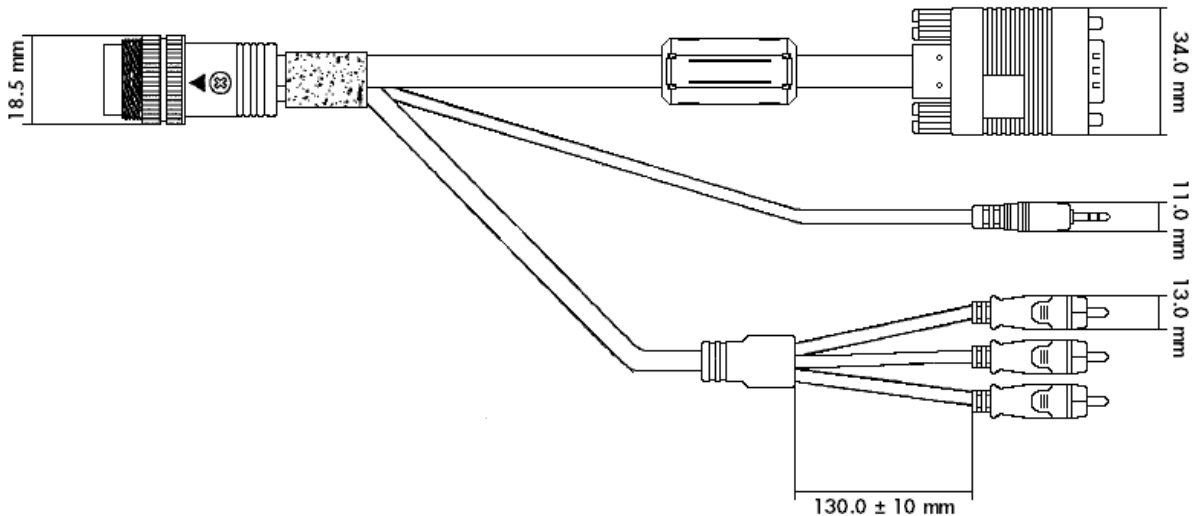
Connector Type:	RCA
Gender:	Male
Contact Material:	Brass, 3µm Gold Plating
Insulation:	White PBT

RapidRun Din Connector (Qty. 1):

Connector Type:	DIN 15 pin
Gender:	Male
Contact Material:	Brass, 3µm Gold Plating
Insulation:	Black PBT

Overall Cable:

Shield:	Aluminum Mylar Wrap – 100% Braided Shield 24/8/0.12 - 85% Coverage - Tinned Copper
Jacket:	Minimum Avg. Thickness – 0.76mm Matte PVC Yellow Heat Shrink



Specifications: RapidRun® HD15 + 3.5mm + Composite Video + Stereo Audio Flying Lead

Electrical Characteristics:

3 Coax Conductors:

Impedance:	75 ± 5Ohm		
Capacitance:	71 ± 2pF/ ft nom		
Velocity of Propagation	78 ± 1%		
DC Resistance:	237 ± 10Ω/km		
Dielectric Strength:	500VAC/1 minute min.		
Insulation Resistance (500V):	10MΩ/KM		
Attenuation (dB/6m):	Red	Green	Blue
	Coax	Coax	Coax
1MHz	0.1464	0.1376	0.1419
10MHz	0.86	0.97	0.4058
100MHz	2.98	3.23	1.259
200MHz	4.45	4.87	1.823
500MHz	6.72	7.75	3.0028
700MHz	9.95	12.01	3.64
1000MHz	13.20	17.52	4.5923

3 Twisted Pair Conductors

DC Resistance:	93.25Ω/m at 20°C
Dielectric Strength:	750VAC/ minute min.
Insulation Resistance:	100Mohm/KM at 20°C

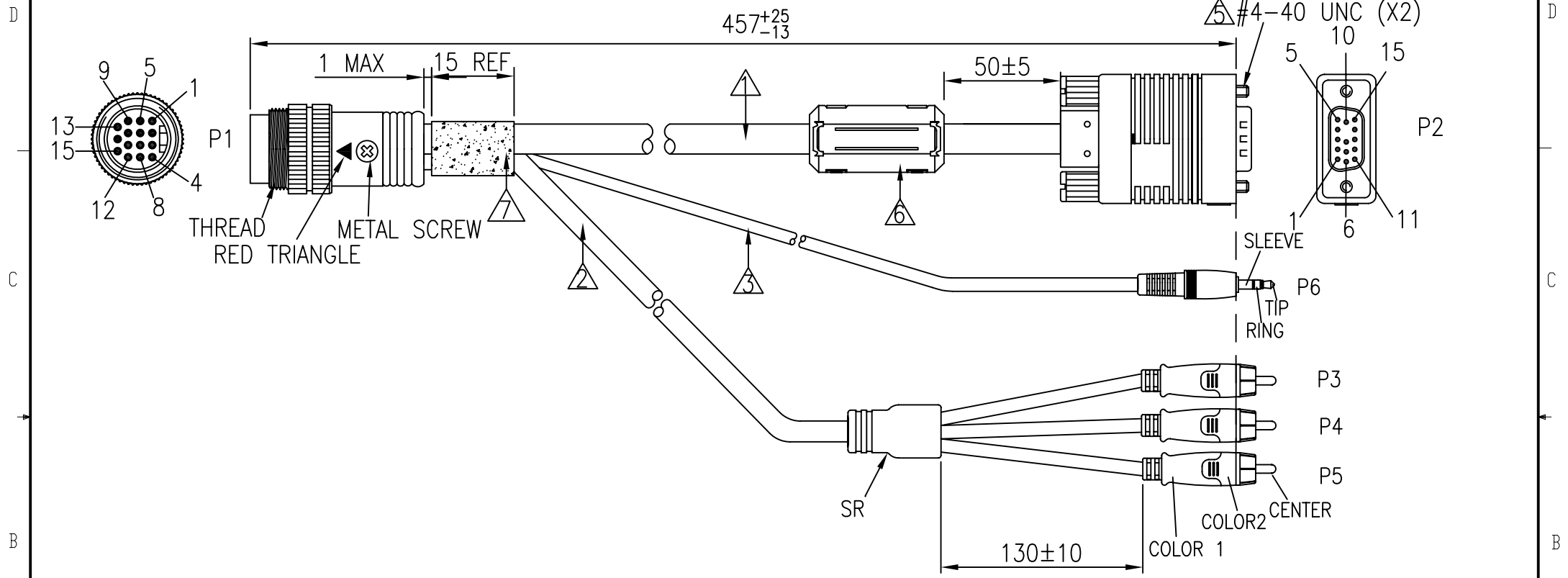
Physical Characteristics:

Voltage Rating:	30V
Temperature Rating:	80°C
Temperature Range:	-25° ~ 80°C
Minimum Bend Radius	90mm

Approvals:	RoHS Compliant
Warranty:	Lifetime
Package Type:	Polybag

Item	Description	Weight (lbs)
42323	1.5 ft RapidRun HD15 + 3.5mm + Composite Video + Stereo Audio Flying Lead	0.41

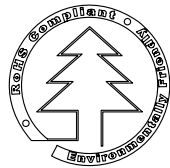
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E	20110248	02-28-2011



COLOR CHART

SR	BLACK (CTG-001)	
P6	BLACK (CTG-001)	
P5	BLACK (CTG-001)	RED (PMS-032C)
P4	BLACK (CTG-001)	WHITE (CTG-901)
P3	BLACK (CTG-001)	YELLOW (PMS-012C)
P2	BLACK (CTG-001)	
HOOD	COLOR 1	COLOR 2

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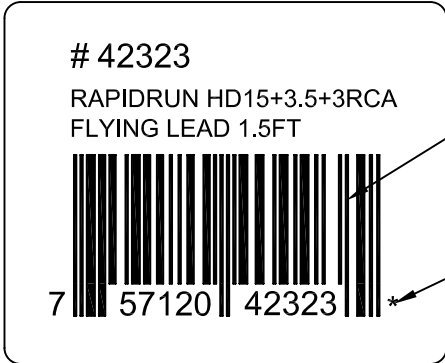


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SAMPLE APPROVED PER _____ DATE: _____ DRAWING SPECIFICATIONS	
PROPRIETARY & CONFIDENTIAL. THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CABLES TO GO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CABLES TO GO IS PROHIBITED.	
mm	TITLE DIN 15P MALE TO HDB15P MALE 3RCA+ 3.5 MM MALE
SCALE NONE	CUS. NAME CTG
SHEET 1/4	CUS. P/N 42323
DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	
.X ±	.XX ±
.XXX ±	ANGLES ±
REV. E	CUS. REV. REV
DRAW NO. P0807021-E	
ENG. Chen	DATE 02-28-2011
CHECKED Sean	DATE 02-28-2011
APPROVED Gary	DATE 02-28-2011

NOTES:

- ① CABLE: SEE SEC A-A.
- ② CABLE: SEE SEC B-B.
- ③ CABLE: SEE SEC C-C.
- 4. CONNECTOR: P1: DIN 15PIN MALE: SOLDER TYPE, GOLD FLASH CONTACTS, BLACK PBT INSULATION, ASSEMBLY TYPE, WITH METAL ASSEMBLY SHELL, WITHOUT KEY, NICKEL PLATED SHELL.
 P2: HIGH DENSITY D-SUB 15PIN MALE: SOLDER TYPE, GOLD FLASH CONTACTS, PIN 9 UNLOADED, BLACK PBT INSULATION, UL.
 P3 ~ P5: RCA PLUG, SOLDER TYPE, GOLD PLATED CONTACT, WHITE INSULATION, RIGAOXIN/#RGX-RP015.
 P6: Ø3.5mm STEREO PLUG, SOLDER TYPE, BLACK INSULATION, NICKEL PLATED CONTACTS AND SHELL.
- ⑤ THUMB SCREW TO BE MOLDED BLACK (CTG-001) PVC.
- ⑥ FERRITE CORE: Ø19.5 X Ø9.0 X 35.0MM, ASSEMBLY TYPE.
- ⑦ YELLOW HEAT SHRINK TUBE.
- 8. SHIELDED: P2: COPPER FOIL TAPE COVER PREMOLD AND 360° SOLDER TO CONNECTOR SHELL AND CABLE BRAID.
- 9. P3 ~ P6 HOOD AND SR: MOLDED PVC, COLOR SEE THE "COLOR CHART".
- 10. ALL MATERIALS ARE RoHS COMPLIANT.
- 11. TESTING: 100% ELECTRICAL TEST AT 10M OHM INSULATION RESISTANCE.
- 12. PACKING: EACH CABLE IN A RapidRun ZIP-LOCK POLY-BAG (WITH RoHS MARK).BAR CODE LABEL (WHITE BACKGROUND WITH BLACK LETTERS, SEE "DETAIL A") TO BE STAMPED ON POLY-BAG TO READ.
- 13. CABLE(1) MARKING:INCLUDE "E***** (UL) TYPE CL2 75°C 28AWG --- AWM 20276 80°C 30V VW-1 CSA AWM I/II A 80°C 30V FT1 Impact Acoustics" ALONG ITS LENGTH.
 CABLE(2) MARKING:INCLUDE "E***** (UL) TYPE CL2 75°C 28AWG --- AWM 20276 80°C 30V VW-1 CSA AWM I/II A 80°C 30V FT1 " ALONG ITS LENGTH.
 CABLE(3) MARKING:INCLUDE "E***** (UL) AWM 2725 80°C 30V VW-1" ALONG ITS LENGTH.

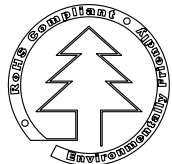


CODE UPC-A

"*" CHECK DIGIT

DETAIL A

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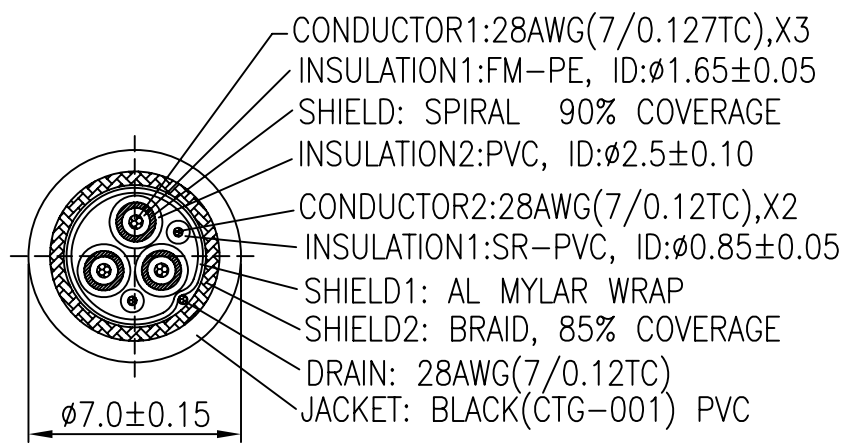
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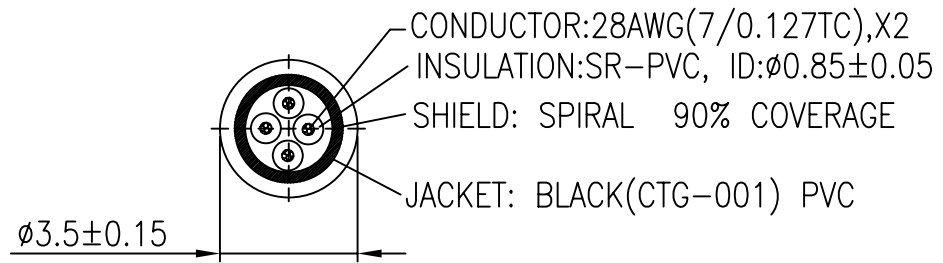
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SAMPLE APPROVED PER _____		DATE: _____	
DRAWING SPECIFICATIONS			
PROPRIETARY & CONFIDENTIAL. THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CABLES TO GO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CABLES TO GO IS PROHIBITED.			
	mm	TITLE DIN 15P MALE TO HDB15P MALE 3RCA+ 3.5 MM MALE	
SCALE	NONE	CUS. NAME CTG	
SHEET	2/4	CUS. P/N 42323	
DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		DRAW NO. P0807021-E	
.X ±	.XX ±	ENG. Chen 02-28-2011	
.XXX ±	ANGLES ±	CHECKED Sean 02-28-2011	
REV. E	CUS. REV	APPROVED Gary 02-28-2011	



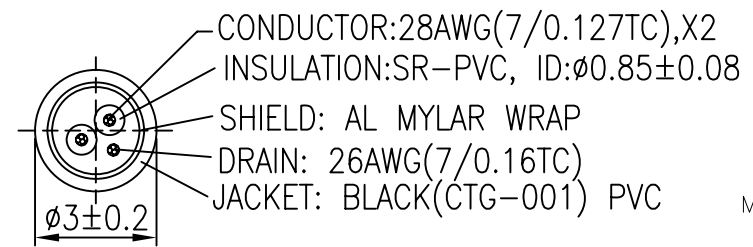
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SEC A-A
SCALE: NTS

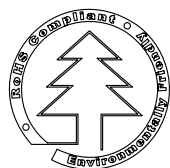


SEC B-B
SCALE: NTS



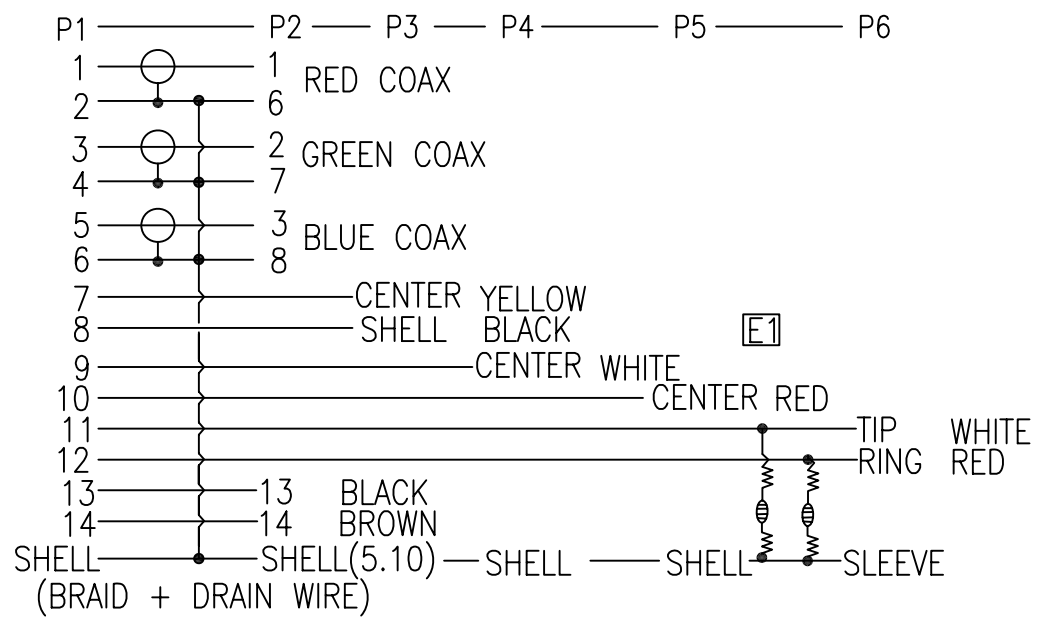
SEC C-C
SCALE: NTS

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SCALE NONE	CUS. NAME CTG						
SHEET 3/4	CUS. P/N 42323						
DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED							
.X ±	.XX ±						
.XXX ±	ANGLES ±						
REV. E	CUS. REV. P0807021-E						
DRAW NO. P0807021-E							
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ENG. Chen	DATE 02-28-2011						
CHECKED Sean	DATE 02-28-2011						
APPROVED Gary	DATE 02-28-2011						

PIN OUT



1/8 WATT 100 OHM CARBON FILM RESISTORS

8 7 6 5 4 3 2 1