

Caleb Cable



Caleb Cable Industrial Ltd.

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*the link to possibilities
for the next generation*

Multimedia TV Cable

COMPANY PROFILE

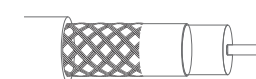
Caleb Cable Industrial Ltd. in Hong Kong & South-China, is a brand dedicated to providing European quality cables with competitive prices to a wide spectrum of different applications which include telecommunication, Digital TV, Automotive, Data transmission, Industrial purposes and Health care, etc.

With an experienced and passionate workforce & team of engineers, Caleb Cable focuses on technical innovation and developments that bring about inspiration to global end-users. Knowing that every customer is unique, Caleb Cable is always with our customers for tailored products & solutions.

All Caleb's products are ISO9001 certificated, and automotive products are ISO/TS16949 certificated, a reflection of the quality that goes into every details of what we do.

We also developed strict materials specification and control on all raw materials, parts, components & products, so the products can meet RoHS, WEEE, and China RoHS. A QC 080000 approval is also granted to Caleb Cable.

Corporate Social Responsibility (CSR) is also getting more and more attention in Caleb Cable. Such attention does not end with an ISO 14001 certificate, but extends all aspects of the company, to put it short, be responsible as a company!



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Cable Code

CONSTRUCTION DATA

Inner conductor	material dia. mm	Cu 0,80	Cu 1,00	Cu 1,00	Cu 1,13	Cu 1,13	Cu 1,13	Cu 1,13
Dielectric	material dia. mm	FPE 3,50	FPE 4,75	FPE 4,30	FPE 4,80	FPE 4,80	FPE 4,80	FPE 4,80
Screen:								
Film foil type	material	Al-Pet-Al	Al-Pet	Al-Pet-Al	Al-Pet-Al	Al-Pet-Al	Al-Pet-Al	Cu-Pet
Foil coverage	%	100	100	100	100	100	100	100
Braid	material	TCU	TCU	TCU	TCU	TCU	TCU	Cu
Braid coverage	%	47	38	41	45	45	45	37
	dia. mm	4,00	5,22	4,80	5,40	5,40	5,40	5,30
Inner sheath	material dia. mm					PE 6.3		
Outer sheath	material dia. mm	PVC 5,00	PVC 6,60	PVC 6,00	PVC 6,60	PVC 7,60	PE 6,80	PVC 6,60

ELECTRICAL DATA

Impedance	Ω	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacitance	pF/m	52 ± 2	54 ± 2	52 ± 2	52 ± 2	52 ± 2	52 ± 2	52 ± 2
Velocity ratio	%	85	82	85	85	85	85	85
Attenuation (at 20°C)								
at 5 MHz	dB/100m	2,3	2,0	2,1	1,9	1,9	1,9	1,4
at 10 MHz	dB/100m	3,2	2,8	2,8	2,6	2,6	2,6	2,0
at 30 MHz	dB/100m	4,6	3,8	3,9	3,5	3,5	3,5	3,0
at 50 MHz	dB/100m	5,9	4,6	4,9	4,4	4,4	4,4	3,7
at 200 MHz	dB/100m	11,2	8,6	9,3	8,3	8,3	8,3	7,8
at 300 MHz	dB/100m	13,7	10,5	11,0	10,1	10,1	10,1	9,6
at 470 MHz	dB/100m	17,4	13,6	14,3	12,8	12,8	12,8	12,2
at 862 MHz	dB/100m	23,8	18,8	19,5	17,5	17,5	17,5	16,9
at 1000 MHz	dB/100m	25,7	20,4	21,0	18,9	18,9	18,9	18,4
at 1750 MHz	dB/100m	34,5	27,8	28,2	25,5	25,5	25,5	25,0
at 2150 MHz	dB/100m	38,2	31,1	31,4	28,4	28,4	28,4	28,0
at 2400 MHz	dB/100m	40,4	32,4	33,2	30,0	30,0	30,0	29,6
at 3000 MHz	dB/100m	44,2	37,3	37,6	34,0	34,0	34,0	33,5
Structural Return Loss (SRL)								
at 5 - 470 MHz	dB	> 30	> 30	> 30	> 30	> 30	> 30	> 30
at 470 - 1000 MHz	dB	> 28	> 28	> 28	> 28	> 28	> 28	> 28
at 1000 - 2000 MHz	dB	> 26	> 26	> 26	> 26	> 26	> 26	> 26
at 2000 - 3000 MHz	dB	> 22	> 22	> 22	> 22	> 22	> 22	> 22
Screening Attenuation (SA)	class	B	B	B	B	B	A	B
at 5 - 30 MHz	mΩ/m	1,2	6,0	2	1,5	1,5	1,5	2,0
at 30 - 1000 MHz	dB	> 80	> 75	> 75	> 80	> 80	> 85	> 75
at 1000 - 2000 MHz	dB	> 80	> 80	> 90	> 80	> 80	> 80	> 85
at 2000 - 3000 MHz	dB	> 75	> 67	> 75	> 70	> 70	> 70	> 75
DC resistance inner/outer cond.	Ω/km	35,0 / 26,0	22,5 / 33,0	22,5 / 26,0	18,0 / 22,0	18,0 / 22,0	18,0 / 22,0	18,0 / 22,0
Loop resistance	Ω/km	61,0	55,5	48,5	40,0	40,0	40,0	40,0
Max. current (I _{eff})	A	4,0	6,0	6,0	8,0	8,0	8,0	8,0
Sheath spark testing	kV	2,5	3,0	3,0	3,0	8,0	5,0	3,0
Specification conformity	EN 50117	part 2-4	part 2-4	part 2-4	part 2-4	part 2-5	part 2-5	part 2-4

Tools & connectors

F twist-on connector	item		F-308	F-307				F-308
F crimp connector	item							
F compression connector	item	B-538		F-367 Series	F-367 Series	F-304/F-311	F-310 F-367	F-367
IEC compression	item	P-628 Series		P-628 Series	P-628 Series		P-628	P-628
BNC Crimp connector	item		B-323-RG6	B-323-RG6	B-323-RG6	B-323-RG6	B-323-RG6/P-605	B-323-RG6

Key Terminology

CCS	Copper Clad Steel
SBC	Solid Bare Copper
BC	Bare Copper
CCA	Copper Clad Aluminium
TCU	Tinned Copper
PE	Polyethylene
HDPE	High Density PE
SPE	Solid PE
FPE	Foam PE
PVC	Polyvinyl Chloride
LSZH	Low Smoke Zero Halogen
CATV	Community Antenna Television
CCTV	Closed Circuit Television
HDTV	High-Definition Television
SAT-TV	Satellite Television

The demands for screening attenuation and transfer impedance of the CATV cables are defined by European Standard EN50117-2.

Class	Frequency MHz	Screening Attenuation	Transfer Impedance
A++	5 - 30		≤ 0,9m Ohm/m
	30 - 1000	≥ 105dB	
	1000 - 2000	≥ 95dB	
	2000 - 3000	≥ 85dB	
A+	5 - 30		≤ 2.5m Ohm/m
	30 - 1000	≥ 95dB	
	1000 - 2000	≥ 85dB	
	2000 - 3000	≥ 75dB	
A	5 - 30		≤ 5m Ohm/m
	30 - 1000	≥ 85dB	
	1000 - 2000	≥ 75dB	
	2000 - 3000	≥ 65dB	
B	5 - 30		≤ 15m Ohm/m
	30 - 1000	≥ 75dB	
	1000 - 2000	≥ 65dB	
	2000 - 3000	≥ 55dB	
C	5 - 30		≤ 50m Ohm/m
	30 - 1000	≥ 75dB	
	1000 - 2000	≥ 65dB	
	2000 - 3000	≥ 55dB	





Cable Code

CONSTRUCTION DATA

Inner conductor	material	CCS
	dia. mm	0,41
Dielectric	material	FPE
	dia. mm	1,90
Screen:		
Film foil type	material	Al-Pet-Al
Foil coverage	%	100
Braid	material	TCU
Braid coverage	%	70
	dia. mm	2,50
Flooding compound	material	
Outer sheath	material	PVC
	colour	
	dia. mm	3,60

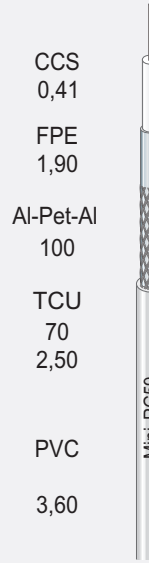
ELECTRICAL DATA

Impedance	Ω	75 ± 3
Capacitance	pF/m	55 ± 3
Velocity ratio	%	82
Attenuation (at 20°C)		
at 5 MHz	dB/100m	3,8
at 10 MHz	dB/100m	5,4
at 30 MHz	dB/100m	8,2
at 50 MHz	dB/100m	10,6
at 200 MHz	dB/100m	20,9
at 300 MHz	dB/100m	25,6
at 470 MHz	dB/100m	32,5
at 862 MHz	dB/100m	44,3
at 1000 MHz	dB/100m	47,8
at 1750 MHz	dB/100m	64,2
at 2150 MHz	dB/100m	71,6
at 2400 MHz	dB/100m	74,3
at 3000 MHz	dB/100m	85,8
Structural Return Loss (SRL)		
at 5 - 470 MHz	dB	> 29
at 470 - 1000 MHz	dB	> 27
at 1000 - 2000 MHz	dB	> 22
at 2000 - 3000 MHz	dB	> 18
Screening Attenuation (SA)	class	A
at 5 - 30 MHz	m Ω /m	0,5
at 30 - 1000 MHz	dB	> 90
at 1000 - 2000 MHz	dB	> 90
at 2000 - 3000 MHz	dB	> 80
DC resistance inner/outer cond.	Ω /km	310,0 / 30,0
Loop resistance	Ω /km	340,0
Max. current (I _{eff.})	A	n.a.
Sheath spark testing	kV	2,5
Specification conformity	EN 50117	part 2-4

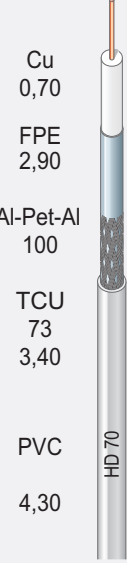
Tools & connectors

F twist-on connector	item
F crimp connector	item
F compression connector	item
IEC compression	item
BNC Crimp connector	item

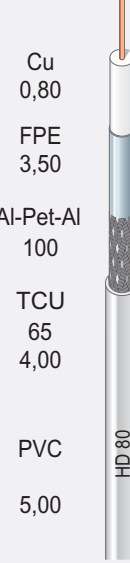
MINI RG59



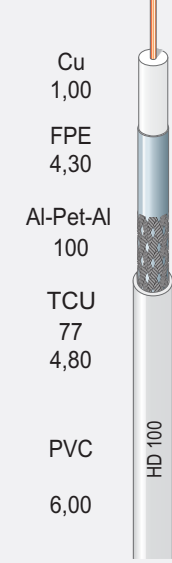
HD70



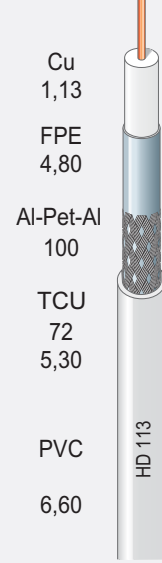
HD80



HD100



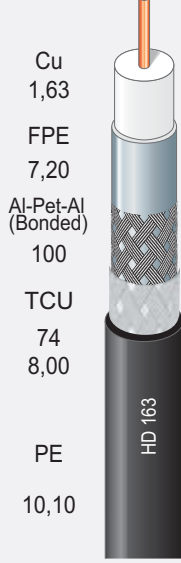
HD113



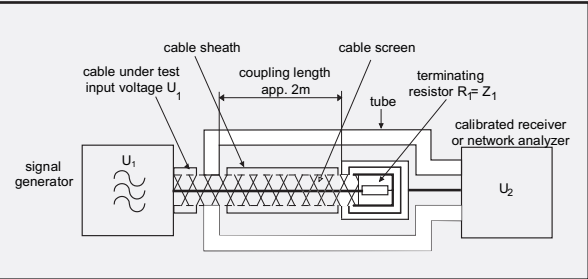
HD125



HD163



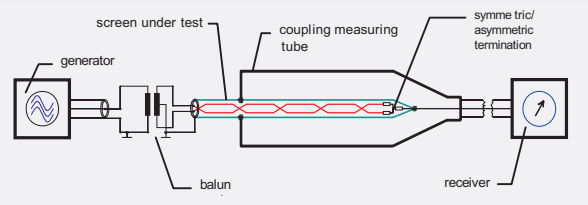
Transfer Impedance



The test sample shall be connected to the generator and the outer circuit (tube) to receiver (see figure).

The attenuation, areas shall be measured in a logarithmic frequency sweep over the whole frequency range, which is specified for the transfer impedance, and at the same frequency points as for the calibration procedure.

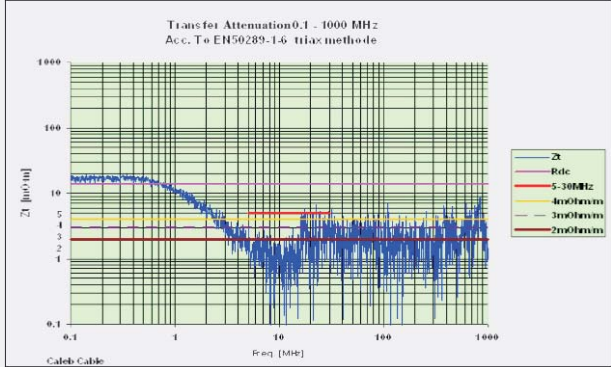
Screening Attenuation



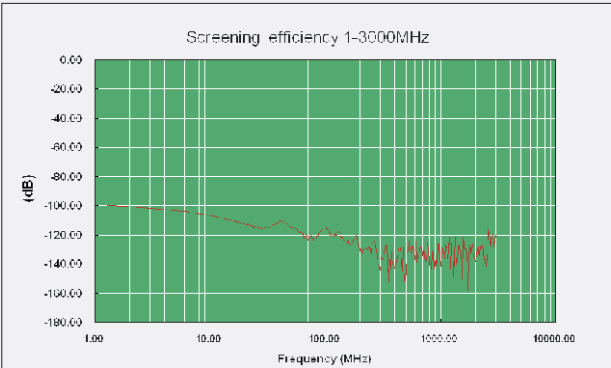
The screen under test is short circuited with tube at the near end. Due to this short circuit, the influence of capacitive parts are excluded.

Contrary to elder standards(IEC 96-1),the generator and the receiver are exchanged. The advantage of the feeding of the matched inner system is the clear marching of the generator as well as the reflection free wave propagation in the cable under test.

Transfer Attenuation



Screening Efficiency





Cable Code

CONSTRUCTION DATA

Inner conductor	material	
	dia. mm	
Dielectric	material	
	dia. mm	
Screen:		
Film foil type	material	
Foil coverage	%	
Braid	material	
Braid coverage	%	
Outer sheath	material	
	dia. mm	

EC100



SA125



SA165



ELECTRICAL DATA

Impedance	Ω	
Capacitance	pF/m	
Velocity ratio	%	
Attenuation (at 20°C)		
at 5 MHz	dB/100m	
at 10 MHz	dB/100m	
at 30 MHz	dB/100m	
at 50 MHz	dB/100m	
at 200 MHz	dB/100m	
at 300 MHz	dB/100m	
at 470 MHz	dB/100m	
at 862 MHz	dB/100m	
at 1000 MHz	dB/100m	
at 1750 MHz	dB/100m	
at 2150 MHz	dB/100m	
at 2400 MHz	dB/100m	
at 3000 MHz	dB/100m	
Structural Return Loss (SRL)		
at 5 - 470 MHz	dB	
at 470 - 1000 MHz	dB	
at 1000 - 2000 MHz	dB	
at 2000 - 3000 MHz	dB	
Screening Attenuation (SA)	class	
at 5 - 30 MHz	mΩ/m	
at 30 - 1000 MHz	dB	
at 1000 - 2000 MHz	dB	
at 2000 - 3000 MHz	dB	
DC resistance inner/outer cond.	Ω/km	
Loop resistance	Ω/km	
Max. current (I _{eff})	A	
Sheath spark testing	kV	
Specification conformity	EN50117	
Tools & connectors		
F compression connector	item	
IEC compression	item	
BNC Crimp connector	item	



Cable Code

CONSTRUCTION DATA

Inner conductor	material	
	dia. mm	
Dielectric	material	
	dia. mm	
Screen:		
Film foil type	material	
Foil coverage	%	
Braid material		
Braid coverage	%	
Shorting fold film foil laminate		
Foil coverage	material	
	%	
Outer sheath	material	
	dia. mm	

BC703



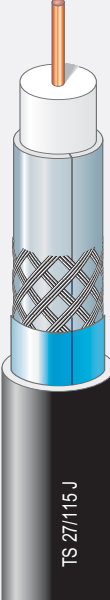
BC11



BC22/99



BC27/115



ELECTRICAL DATA

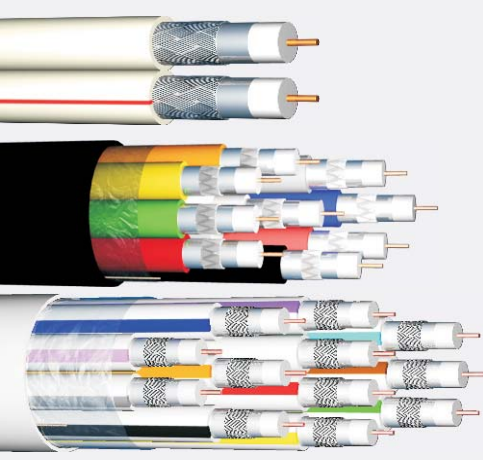
Impedance	Ω	
Capacitance	pF/m	
Velocity ratio	%	
Attenuation (at 20°C)		
at 5 MHz	dB/100m	
at 10 MHz	dB/100m	
at 30 MHz	dB/100m	
at 50 MHz	dB/100m	
at 200 MHz	dB/100m	
at 300 MHz	dB/100m	
at 470 MHz	dB/100m	
at 862 MHz	dB/100m	
at 1000 MHz	dB/100m	
at 1750 MHz	dB/100m	
at 2150 MHz	dB/100m	
at 2400 MHz	dB/100m	
at 3000 MHz	dB/100m	
Structural Return Loss (SRL)		
at 5 - 470 MHz	dB	
at 470 - 1000 MHz	dB	
at 1000 - 2000 MHz	dB	
at 2000 - 3000 MHz	dB	
Screening Attenuation (SA)	class	
at 5 - 30 MHz	mΩ/m	
at 30 - 1000 MHz	dB	
at 1000 - 2000 MHz	dB	
at 2000 - 3000 MHz	dB	
DC resistance inner/outer cond.	Ω/km	
Loop resistance	Ω/km	
Max. current (I _{eff})	A	
Sheath spark testing	kV	
Specification conformity	EN 50117	
F compression connector	item	
IEC compression	item	
BNC Crimp connector	item	



Cable code		KX6	KX6(Long Distance)	KX8	RG59 B/U	RG59 MINI	RG59 Foam	RG59+2C	
								A	B
Construction Data									
Inner conductor	material	BC	BC	BC	CCS	CCS	CCS	CCS	BC
Conductivity	%				30~40	40	30		
	dia. mm	0,2*7	0,8	0,4*7	0,58	0,41	0.58	0.58	0.20*24
Dielectric	material	SPE	FPE	SPE	SPE	FPE	FPE	SPE	PVC
	dia. mm	3,70	3,7	7,25	3,70	1,9	2.8	3,70	2.0
Screen:									
Film foil type	material		Al-Pet-Al(Bonded)			Al-Pet-Al			Chalk
Foil coverage	%		> 100			≥ 125			—
Braid material		CU	TCU	CU	Cu	TCU	CCA	BC	
Braid coverage	%	80	> 75	80	80~90	>70	86	>84	
Outer sheath	material	PVC	PVC	PVC	PVC	PVC	PVC	PVC	
	dia. mm	6,10	6,0	10,2	6,15	3,6	5.0	6,10	
									
								A+B	
								Sheath:LSZH, Dia. :10.3mm	

Electrical Data															
Impedance	Ω		75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacitance	pF/m		67 ± 2	< 56	67 ± 2	< 70	< 60	53 ± 3	<70						
Velocity ratio	%		66	83	66	66	82	82	66						
Attenuation (at 20°C)															
at	50 MHz	dB/100m	8,1	---	2,9	8,5	12,5	---	8,5					8,5	
at	100 MHz	dB/100m	13,0	7,9	4,5	11,8	16,7	11,9	11,8					11,8	
at	200 MHz	dB/100m	18,5	10,9	10,9	16,5	22,5	16,8	16,5					16,5	
at	450 MHz	dB/100m	27,5	---	20,7	26,00	33,1	---	26,0					26,0	
at	800 MHz	dB/100m	34,5	22,8	23,6	35,80	44,75	---	35,8					35,8	
at	860 MHz	dB/100m	35,8	---	24,5	37,20	46,64	35,7	37,2					37,2	
at	1000 MHz	dB/100m	45,0	---	27,5	39,50	50,50	38,9	39,5					39,5	
Inner Conductor Resistance		Ω/km	87,5	37	22,2	235	359.1	239	235					<24.6	

SMTV - Coaxial Cables



- 2X
2 coaxials for dual feed parabolic antenna
- 5X
4 coaxials for 1 satellite drop line 1 coaxial for terrestrial drop line
- 9X
4+4 coaxials for 2 satellite drop lines 1 coaxial for terrestrial drop line

The multicore was designed to offer the best solutions to the professional installer, which allows the installer to save a lot of time when laying the distribution network.



Connectors

Stripper and Crimping Tools

F-322



F-125A F-male Twist on Water proof



F-125B F-male Twist on Water proof



F-307 F-male Twist on



F-367 male compression



BNC-323 RG6/RG58/RG59



F-311 Crimp connector



F-304 Crimp connector



F-308 F-male Twist on



F-310 Crimp connector



B-538 Male compression



F-367 male compression



P-628 Male compression



With the strong support from our engineers and partners, we are able to quickly provide you the whole package and complete solution to meet your expectations.



BH-230 PA
HEX .256" .319" .068" .213".
(6.50/8.10/1.72/5.41mm)
RG58, 59, 62, 6



BH-230 PA
HEX .256" .068" .213"
(6.50/1.72/5.41mm)
RG58, 59, 62



BH-2019
Coaxial stripper
A: RG58/RG59 Cable
B: RG58/RG59/62/6/
3c-2v Cable



BH-5082R
Professional/Waterproof
Connectors' Crimping Tools
For Waterproof Connectors
F, BNC, RCA (3INTool) adjustable

USA Cable Type	Caleb Cable Cable Type	look at page
Mini RG 59	MINI RG59	4
RG59	CA501	2
RG6	CA50M	2
	CA602	2
RG6+(1)	HD100	4
	CA703B	2
	CA703-2G	3
	17PATC	3
	CA114	3
RG7	HD113	5
	BC703	7
	HD125	5
RG11	HD163	5
	BC11	7

(1) Into the typical US cables' range exists no RG6+ reference at all. We introduce it to justify our most standard range of coax cables - as well as of any typical European manufacturer - whose inner conductor size is dia.1.13mm/0.044ft.

With the symbol "+", we stress that such an inner conductor size performs better attenuation values than an inner conductor dia. 1.00mm/0.039ft.



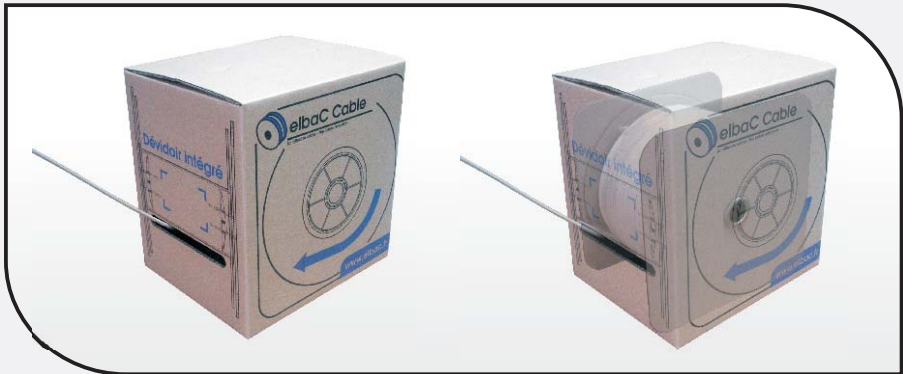
BH-5081
Waterproof Connector
Crimping Tool
RG59, Rg6

Carton



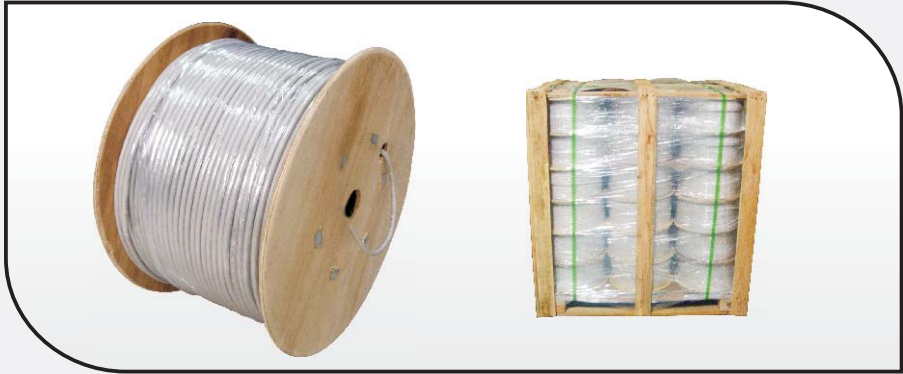
Length
50M/165ft
100M/330ft

Easy Reel



Length
200M/660ft
305M/1000ft

Wooden Drums



Length
500M/1650ft
1000M/3300ft

Carton



Length
25M/82ft



Patent NO. ZL 2009 2 0062008.5

- Easy to handle
- Cost effective without the use of reels

