



# ACCU-TEST™

## 150 & 200 Series

### Stable and robust for test and measurement applications

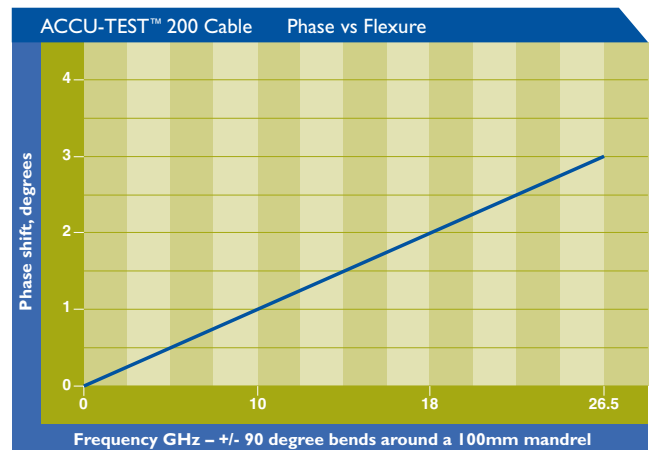
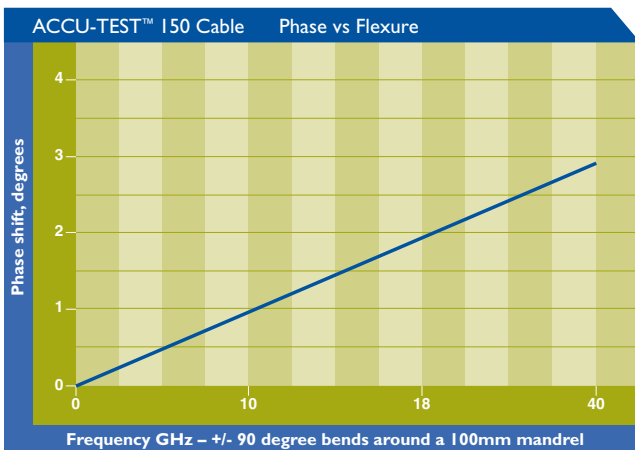
#### Phase and amplitude stable test & measurement cable assemblies

RF & Microwave test engineers often require high levels of phase and amplitude stability with flexure to ensure that calibration accuracy is maintained throughout the measurement process. Teledyne Reynolds ACCU-TEST™ cable assemblies provide exceptional performance for such applications.

With 26.5 GHz and 40 GHz cable options, a construction designed to minimise inter-layer movement, and a wide range of armouring styles, ACCU-TEST™ offers a solution which is stable and robust for test and measurement applications.



FEATURES	BENEFITS
■ Phase and amplitude stable with flexure	■ Calibration accuracy is maintained
■ Flexible	■ Easy to use
■ Crush and kink resistant armouring and ruggedising options	■ Longer service life in harsh environments
■ Phase matching options	■ Ideal for comparative measurements
■ VNA test port connectors are available	■ No need for test port adapters



### Construction

Centre conductor material	Solid, silver plated copper clad steel
Dielectric material	Low loss, low density PTFE
Primary shield	High coverage, silver plated copper ribbon braid
Secondary shield	High strength, laminated polyimide tape
Tertiary shield	High coverage, silver plated copper round braid
Jacket material	Extruded FEP

### Electrical Specifications

	150 Series	200 Series
Maximum operating frequency	40 GHz	26.5 GHz
Impedance	50 ± 2 Ω	50 ± 2 Ω
Phase stability with flexure (typical)	± 3° at 40 GHz	± 3° at 26.5 GHz
Amplitude stability with flexure (typical)	0.06 dB at 40 GHz	0.04 dB at 26.5 GHz
Attenuation (nominal)		
at 18 GHz	1.97 dB / metre	1.62 dB / metre
at 26.5 GHz	2.42 dB / metre	2.00 dB / metre
at 40 GHz	3.03 dB / metre	-
VSWR (typical with 2 straight connectors)		
Up to 3 GHz	1.10 : 1	1.10 : 1
3 – 18 GHz	1.15 : 1	1.15 : 1
18 – 26.5 GHz	1.25 : 1	1.25 : 1
26.5 – 40 GHz	1.30 : 1	-
Shielding effectiveness	≥ 100 dB at 1 GHz	≥ 100 dB at 1 GHz
Capacitance (nominal)	90.2 pF / metre	90.2 pF / metre
Propagation delay (nominal)	4.56 ns / metre	4.56 ns / metre
Phase matching	Available on request	Available on request

Specifications subject to change without notice.

### Mechanical Specifications

	150 Series	200 Series
Cable diameter (nominal)	3.8mm	5.1mm
Minimum centreline bend radius	38mm (dynamic), 25mm (static)	51mm (dynamic), 25mm (static)
Temperature range (unarmoured)	-54°C to +150°C	-54°C to +150°C
Connector retention	15 kg	27 kg
Weight	38 g / metre	65 g / metre

### Armouring Options

Polyolefin ruggedised	Wound helix of passivated stainless steel wire covered with a cross linked Polyolefin jacket. Operating temperature range -54°C to +135°C
Polyurethane ruggedised	Wound helix of passivated stainless steel wire covered with an extruded Polyurethane jacket. Operating temperature range -54°C to +100°C
Hard armour	Fully interlocked stainless steel armour, with an optional Polyolefin jacket. Operating temperature range -54°C to +135°C
Soft armour (Available for 200 Series only)	Polyethylene anti-compression helix covered with a tough Neoprene™ jacket. Operating temperature range -54°C to +100°C



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