Product Facts

- Smaller, light weight cable reduces operator fatigue
- Excellent maneuverability in all directions
- Flexible cable with low torque
- True coax construction and performance

Improved ergonomics with true coax

In the US and Canada, over seventy percent of sonographers report pain and discomfort while handling transducer assemblies during ultrasound exams.[1] Additionally, the ease of positioning the transducer depends on the transducer housing, flex relief cuff and the cable's ability to follow the movements of the sonographer's hand movements."[2]

User-friendly COMFORT cable is easy to maneuver in any direction to help alleviate operator discomfort. With this latest innovation in cable technology, cable flexibility is increased 23% over its previous generation of cable already known for its flexibility and outstanding flex-life. In a recent survey, 92% of sonographers polled preferred COMFORT cable's low torque design.[3]

COMFORT cable uses PRECISION INTERCONNECT field proven coax. For the sonographer, this means the cables' reduced size, light weight and increased flexibility are achieved without compromising image quality.

COMFORT Cable Integrity

A complete battery of design qualification tests validates COMFORT cable's mechanical, electrical and environmental (including disinfection solutions) characteristics.[4] COMFORT cable's true coax design provides signal integrity in acoustic applications where cross talk, bandwidth and attenuation affect performance. The unique cable construction minimizes capacitance variation and supports improved contrast resolution especially at higher frequencies. In flex-life tests, COMFORT cable (with appropriate strain reliefs in place) outperforms traditional concentric cable, with the average subassembly exceeding 1,000,000 cycles.[4]

MODULUS3 Cable Assemblies

COMFORT cable is compatible with all MODULUS3 components and logistics. The pre-engineered platform, strategic stocking programs, transducer attachment capabilities and global Configure-to-Order facilities make MODULUS3 cable assemblies an excellent platform for ultrasound assemblies.

The pre-engineered platform allows the OEM to forecast assemblies at the generic level and order finished assemblies based on current product mix requirements. This provides maximum flexibility with very short lead times allowing our customers to reduce the need for inventory and be more

For More Information
For the latest additions to the product family, access to technical data or to contact a product specialist go to: **www.tycoelectronics.com/pi/comfort**

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www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are U.S. equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

Phone: 1-503-685-9300

Fax: 1-503-685-9305

Configurations and options

responsive to changes in demand.

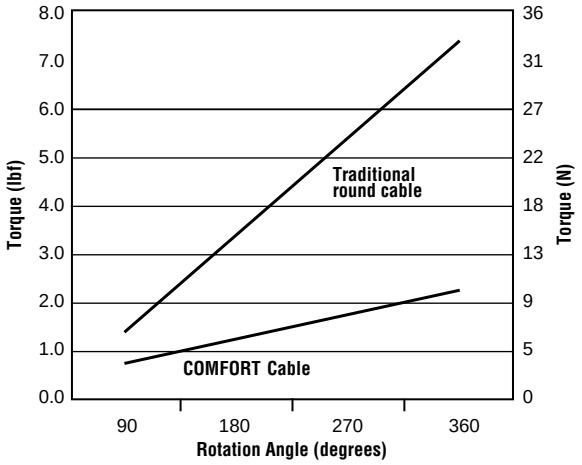
Coax and Cable Options

For improved ergonomic performance, the MODULUS3 platform now includes 42 AWG center conductors to reduce cable weight and size. OEMs can select either 50Ω coax or low capacitance, 75Ω coax to support 64, 96,128 or 192 element transducers using either 40 or 42 AWG center conductors. (Note: Each cable construction has a minimum of four extra coax for auxiliary functions.) All cables have an overall braid shield and biocompatible PVC jacket. The cable jacket, flex reliefs and ZIF housing are all fabricated in Classic White, nominally corresponding to Munsell 5.84GY9.15/0.47

More Information

Your field representative can tell you more about COMFORT cable's performance advantages and design options. The "Design Qualification Test Report" validates product characteristics. The "COMFORT Cable Design Guide" details parameters for customer designed flex-reliefs and terminations.

Torque Comparison



One measure of cable ergonomics is defined by the torque required for rotational movement.[4]

COMFORT Cable Configurations

Center Conductor	DC Resistance Maximum		Transducer Elements	Cable Nominal Values						
				Capacitance		Impedance	Cable O.D.		Weight	
AWG	Ω/m	Ω/ft		pF/m	pF/ft	ohms	mm	in	gr/m	oz/ft
40	4.76	1.45	64	101	30.5	50	6.1	.250	53	.6
				54	16.5	75	6.5	.255	56	.6
			96	101	30.5	50	7.2	.285	73	.8
				54	16.5	75	7.7	.305	76	.8
			128	101	30.5	50	7.5	.295	85	.9
				54	16.5	75	8.4	.330	89	1.0
			192	101	30.5	50	8.4	.330	113	1.2
				54	16.5	75	9.5	.375	124	1.3
42	7.55	2.30	64	101	30.5	50	5.7	.230	48	.5
				53	16	75	6.1	.230	48	.5
			96	101	30.5	50	7.2	.285	67	.7
				53	16	75	7.2	.285	67	.7
			128	101	30.5	50	7.2	.285	77	.8
				53	16	75	7.5	.295	77	.8
			192	101	30.5	50	7.7	.305	99	1.1
				53	16	75	8.4	.330	99	1.1

COMFORT cable is also available in custom element counts and other AWG sizes.

[1] Carmel Murphy, M.Sc. and Andre Russo, B.Sc. "An Update on Ergonomic Issues in Sonography," Healthcare Benefit Trust, July 2000.
[2] Murphey, Susan L. and Carolyn T. Coffin, "Ergonomics and Sonographer Well-Being in Practice," Sound Ergonomics, August 2002. (www.soundergonomics.com)
[3] SDMS 19th Annual Conference visitors polled October 3, 4 and 5, 2002, in Atlanta, Georgia, USA, Precision Interconnect, October 2003.
[4] Design Qualification Test Report for Comfort Cable, Precision Interconnect, March 2003.

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