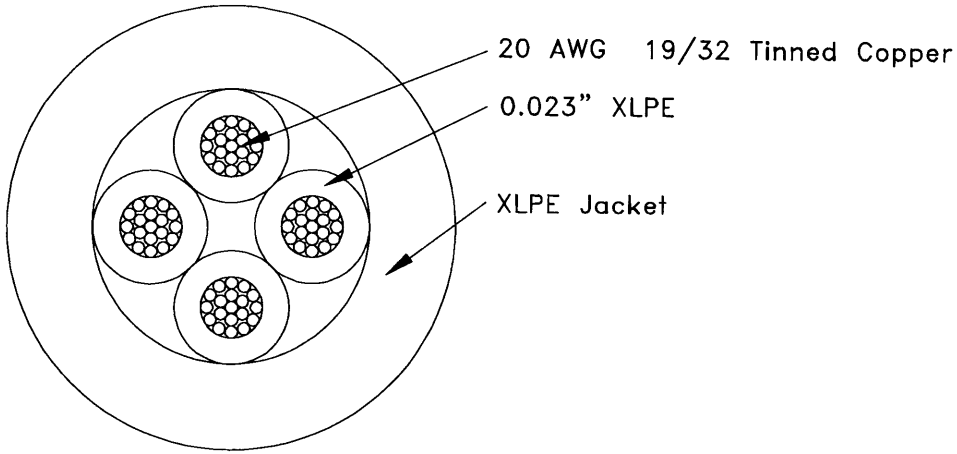
PRODUCT SPECIFICATION DRAWING

Specification Number:	JW457-96
Title: Surface Vehicle Data Transmission Cable, ISO 11783-2, 250K Bits/sec, Twisted Quad	Original Date: 1/16/02 / Revision: E

REFERENCE SPECIFICATIONS	TEMPERATURE RATING	VOLTAGE RATING	JUDD PART NO.
SAE J1128 Type GXL ISO 11783-2	125°C	50 VOLTS	M07041160001



Drawing Not To Scale

CONSTRUCTION DETAILS

CONDUCTOR (x4)			FINISHED PRIMARY WIRE (x4)		
Wire Size	Type Stranding	Target Diameter	Insulation	Nominal Wall Thickness	Target Diameter
20 AWG	Tinned Annealed Copper 19 / 32	0.038 inch	Irradiation Crosslinked Polyethylene	0.023 inch	0.084 inch

CABLED COMPONENTS			JACKET		
Lay Length	Direction	Cabling Sequence	Insulation	Nominal Wall Thickness	Finished Target Diameter
2 inches	Left Hand	Red, Green, Black, Yellow	Irradiation Crosslinked Polyethylene	0.0205 inch	0.244 inch

JUDD WIRE, INC.
124 Turnpike Road
Turners Falls, MA 01376
(413) 863-4357

Drawn By: K. CIENKUS	Approved By: M. GROMKO	Page: 1 of 2
Revision Date: 7/24/02	Approval Date: 7/24/02	File: 457-96E.doc

PERFORMANCE PROPERTIES

CATEGORY	TEST	PROCEDURE	REQUIREMENT
Mechanical	Primary Wire:		
	Tensile Strength	SAE J1128: 2 inches per minute	1500 PSI minimum
	Elongation		150% minimum
	Sandpaper Abrasion Resistance	SAE J1128: Bracket A ; 1 pound mass	16 inches minimum
	Pinch Resistance	SAE J1128: 1/8" rod, 10 to 1 lever, 5 lbs/minute	11 pounds minimum
	Adhesion	2 inch slug removed from conductor at 2 inches per minute	2.2 lbs. minimum of 5 readings
Thermal	Primary Wire:		
	Accelerated Aging	SAE J1128: 168 hours at 155°C	80% minimum retention of unaged tensile strength value 50% minimum retention of unaged elongation value
	Cold Bend	SAE J1128: 3 hours at -40°C ; 1 inch mandrel ; 1.5 pound mass	no cracks ; 1000 volt dielectric test
	Flame Resistance	SAE J1128: 45° plane ; Bunsen Burner ; 15 second flame	70 second maximum burn time
Electrical	Primary Wire:		
	Dielectric Test	ISO 11783-2: 5 hours preconditioning at room temp in water (5% salt)	1000 volts at 60 Hz for 1 minute without breakdown
	Cable		
	Dry Dieletcric	apply voltage between conductors	1500 volts at 60 Hz for 15 seconds without breakdown
	Conductor Resistance:	ISO 11783-2	50 mΩ/m, maximum
	Capacitance: C_b	ISO 11783-2	75 pf/m, maximum between CAN_H and CAN_L
	C_a	ISO 11783-2	110 pf/m, maximum between adjacent conductors
	Impedance:	ISO 11783-2	70 Ω, minimum; 80 Ω maximum
	Line Delay:	ISO 11783-2	5.0 ns/m, nominal
Chemical	Primary Wire:		
	Fluid Compatibility:	SAE J1128	All specimens also subjected to the dielectric test
	Engine Oil	20 hours at 50 ± 3°C	15% maximum OD change
	Gasoline	20 hours at 23 ± 5°C	15% maximum OD change
	Ethanol	20 hours at 23 ± 5°C	15% maximum OD change
	Diesel Fuel	20 hours at 23 ± 5°C	15% maximum OD change
	Power Steering	20 hours at 50 ± 3°C	30% maximum OD change
	Transmission Fluid	20 hours at 50 ± 3°C	25% maximum OD change
	Engine Coolant	20 hours at 50 ± 3°C	15% maximum OD change
	Battery Acid	20 hours at 23 ± 5°C	5% maximum OD change