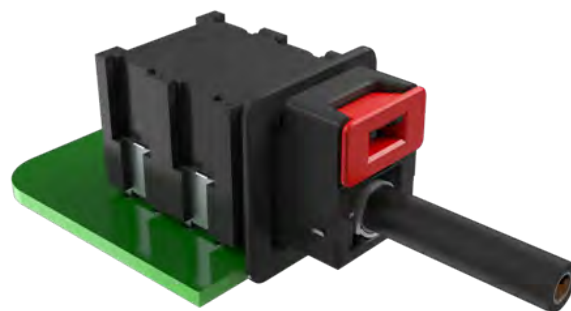# NETBridge™ Automotive Ethernet Connector System

COMPLIANT WITH USCAR-2 SPECIFICATIONS; IDEAL FOR AUTOMOTIVE APPLICATIONS

NETBridge™ Automotive Ethernet Connector System is designed for the automotive environment and can transmit up to 100Mbit/s and 1Gbit/s according to IEEE 100BASE-T1 and 1000BASE-T1. These automotive grade Ethernet connection system uses twisted-pair cables to transmit data. NETBridge™ is developed in accordance with USCAR-2, VDAAK LV214 and ISO 8092-2.

- 0.50mm x 0.40mm tab terminal system
- Temperature range -40°C to +100°C in sealed and unsealed configurations
- 10G+ and waterproof versions are in development
- CCPA for secondary lock of contact carrier assembly
- Optional CPA for secondary lock in mated condition

TARGET MARKETS

FEATURES	BENEFITS
Automotive grade Ethernet application	Offers higher data transmission rate
Scalable port options with 1x1 to 1x7 ports for right angle and vertical connectors; 1x1, 1x5 for inline adaptor	Design flexibility
Touch proof design	Contact pin protection
Mechanical and visible color coding	Avoids mismating
Mechanically robust design	Easy installation
CCPA for secondary lock of contact carrier	Ensures proper connector assembly

▶ NETBridge™ Automotive Ethernet Connector System

TECHNICAL INFORMATION

MATERIAL

- Housing: High temperature thermoplastic, UL 94V–0
- Contacts: Brass
- Shell: Phosphor Bronze

MECHANICAL PERFORMANCE

- Retention Force >= 110 Newtons
- Unmating Force <= 75 Newtons
- Durability: 10 cycles

ELECTRICAL PERFORMANCE

- Low Level Contact Resistance: 15mΩ max.
- Contact Current Rating: 3A
- Dielectric Withstanding Voltage: 500VAC

PACKAGING

- Tray
- Tape & Reel

SPECIFICATION

- Amphenol Product Specification: NETBridge™ series

ENVIRONMENTAL

- Humidity: 40 cycles between –40°C to +100°C. Relative Humidity 0% to 95%
- Vibration: V1 Class
- Thermal Shock: 100 cycles between –40°C to +100°C
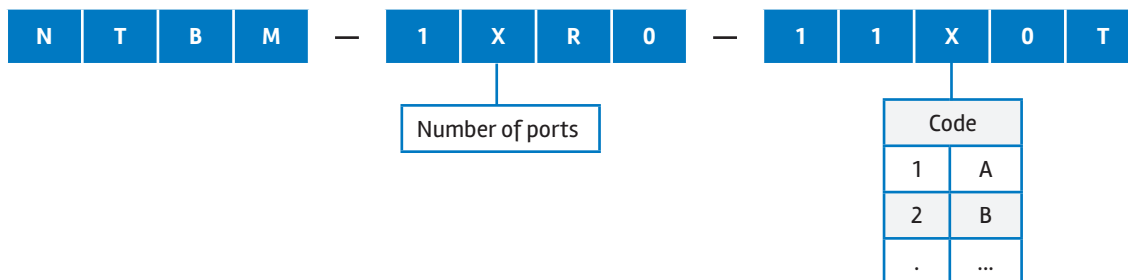
APPROVALS AND CERTIFICATION

- USCAR–2 Compliant
- IATF Production Compliant
- RoHS
- REACH/SVHC
- Low Halogen

TARGET MARKETS/APPLICATIONS

Body Control
Safety
Security and Comfort
Advanced Driver Assistance Systems (ADAS)
Infotainment

PART NUMBER SELECTOR

N	T	B	M	—	1	X	R	0	—	1	1	X	0	T

Number of ports

Code	
1	A
2	B
.	...

▶ NETBridge™ Automotive Ethernet Connector System

PART NUMBERS

PCB Side Connector

Description	Data Rate	Code	Part Numbers
NETBridge™, 1x1, Right Angle, DIP, 100Mbit/s, Code A	100M	A	NTBM11R0U01110T
NETBridge™, 1x2, Right Angle, DIP, 100Mbit/s, Code A	100M	A	NTBM12R0U01110T
NETBridge™, 1x3, Right Angle, DIP, 100Mbit/s, Code A	100M	A	NTBM13R0U01110T
NETBridge™, 1x4, Right Angle, DIP, 100Mbit/s, Code A	100M	A	NTBM14R0U01110T
NETBridge™, 1x5, Right Angle, DIP, 100Mbit/s, Code A	100M	A	NTBM15R0U01110T
NETBridge™, 1x6, Right Angle, DIP, 100Mbit/s, Code A	100M	A	NTBM16R0U01110T
NETBridge™, 1x7, Right Angle, DIP, 100Mbit/s, Code A	100M	A	NTBM17R0U01110T
NETBridge™, 1x1, Right Angle, DIP, 1Gbit/s, Code A	1G	A	NTBM11R1U01110T
NETBridge™, 1x2, Right Angle, DIP, 1Gbit/s, Code A	1G	A	NTBM12R1U01110T
NETBridge™, 1x3, Right Angle, DIP, 1Gbit/s, Code A	1G	A	NTBM13R1U01110T
NETBridge™, 1x4, Right Angle, DIP, 1Gbit/s, Code A	1G	A	NTBM14R1U01110T
NETBridge™, 1x5, Right Angle, DIP, 1Gbit/s, Code A	1G	A	NTBM15R1U01110T
NETBridge™, 1x6, Right Angle, DIP, 1Gbit/s, Code A	1G	A	NTBM16R1U01110T
NETBridge™, 1x7, Right Angle, DIP, 1Gbit/s, Code A	1G	A	NTBM17R1U01110T

PCB Side Vertical Connector

Description	Data Rate	Code	Part Numbers
NETBridge™, 1x1, Vertical, DIP, Code A	100M	A	NTBM11V1U01110T
NETBridge™, 1x5, Vertical, DIP, Code A	100M	A	NTBM15V1U01110T

Standard cable

Description	Length	Code	Part Numbers
NETBridge™ 1x1 to 1x1 Cable	1001mm	A	CAAN21111111000
NETBridge™ 1x2 to 1x2 Cable	1001mm	A	CAAN22112111000
NETBridge™ 1x3 to 1x3 Cable	1002mm	A	CAAN23113111000
NETBridge™ 1x4 to 1x4 Cable	1003mm	A	CAAN24114111000
NETBridge™ 1x5 to 1x5 Cable	1004mm	A	CAAN25115111000
NETBridge™ 1x6 to 1x6 Cable	1005mm	A	CAAN26116111000
NETBridge™ 1x7 to 1x7 Cable	1006mm	A	CAAN27117111000

Inline Adaptor

Description	Code	Part Numbers
NETBridge™, 1X1, Inline Adaptor	A+B	NTBA1120002T
NETBridge™, 1X5, Inline Adaptor	A+B	NTBA1520002T

Mouser Electronics

Authorized Distributor

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