

ECN/PCN No.: M1622

For Manufacturer

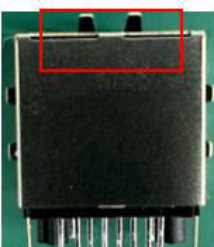
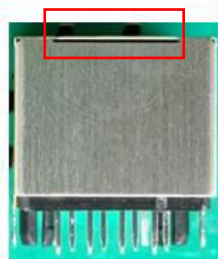
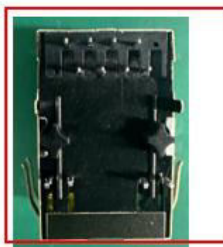
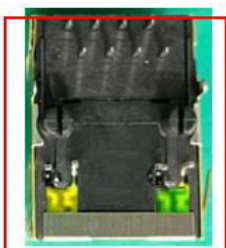
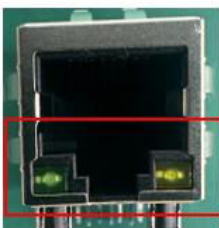
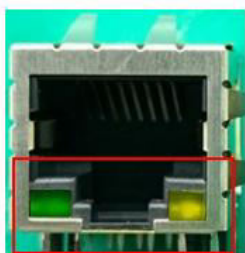
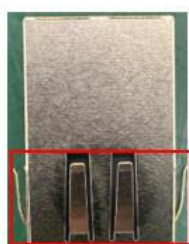
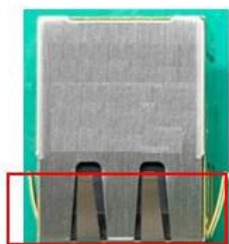
Product Description: RJ45 10/100 Base-T Jack with Magnetic Module	Abracon Part Number / Part Series: ARJ11B-MBSBQ-A-B-EMU2	<input type="checkbox"/> Documentation only <input checked="" type="checkbox"/> ECN <input type="checkbox"/> EOL	<input checked="" type="checkbox"/> Series <input type="checkbox"/> Part Number(s)
Affected Revision: A	New Revision: B	Application:	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Non-Safety

Prior to Change:
Update housing details for ARJ11B-MBSBQ-A-B-EMU2 and convert to new template

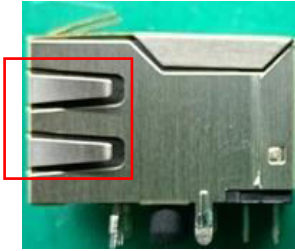
After Change:
There is some variation in the mechanical Molding and has same pin layouts and electrical characteristics

Before Change

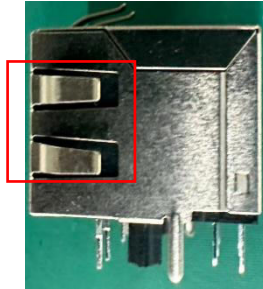
After Change



Before Change



After Change


Cause/Reason for Change:

New molding was added because the old molding was getting aged

Change Plan
Effective Date:

7/2/2025

Additional Remarks:
Change Declaration:

Change in the housing look and no change in the fit, form factor and electrical aspects

Issued Date:

7/2/2025

Issued By:

Baji suryadevara

Issued Department:

Engineering

Approval:

Syed Raza
CTO

Approval:

Reuben Quintanilla
Quality Director

Approval:

Ying Huang
Purchasing Director

For Abracon EOL only
Last Time Buy (if applicable):
Alternate Part Number / Part Series:
Additional Approval:
Additional Approval:
Additional Approval:
Customer Approval (If Applicable)
Qualification Status:

Approved Not accepted

Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.

Customer Part Number:
Customer Project:
Company Name:
Company Representative:
Representative Signature:
Customer Remarks:

RJ45 10/100 Base-T Jack with Magnetic Module



ARJ11B Series

Request Samples



Check Inventory



16.26 x 13.84 x 21.59mm
 ROHS/ROHS II COMPLIANT
 MSL Level = N/A

Features

- Excellent EMI suppression
- Meets IEEE 802.3 standards and FCC mechanical requirements
- Low cost, RoHS compliant Reflowable device

Applications

- LAN-on-Motherboard (LOM)
- SOHO (ADSL modems), Hubs
- Suitable for CAT 5&6 Fast Ethernet Cable or better UTP

Electrical Specifications

Part Number	Turns Ratio		EMI Finger rs	LED (L/R)	Insertion Loss (dB max)	Return Loss (dB min @100Ω±15Ω)			
	TX	RX				0.3-100 MHz	1- 30 MHz	40 MHz	50 MHz
ARJ11B-MASAA-MU2 to ARJ11B-MASAI-MU2	1CT:1CT	1CT:1CT	YES	---	-1.0	-18	-16	-14	-12
ARJ11B-MASAJ-MU2 to ARJ11B-MASAM-MU2	1CT:1CT	1CT:1CT	YES	---	-1.0	-18	-16	-14	-12
ARJ11B-MASAN-LU2 to ARJ11B-MASBF-LU2	1CT:1	1CT:1CT	YES	---	-1.0	-18	-16	-14	-12
ARJ11B-MESCB-A-B-ELT2	1CT:1	1CT:1	NO	G/Y	-1.0	-18	-16	-12	-10
ARJ11B-MASCB-LT2	1CT:1	1CT:1	YES	---	-1.0	-18	-16	-12	-10
ARJ11B-MBSCB-A-B-ELT2	1CT:1	1CT:1	YES	G/Y	-1.0	-18	-16	-12	-10
ARJ11B-MDSBQ-MU2	1CT:1CT	1CT:1CT	NO	---	-1.0	-18	-16	-12	-10
ARJ11B-MESBQ-A-B-EMU2	1CT:1CT	1CT:1CT	NO	G/Y	-1.0	-18	-16	-12	-10
ARJ11B-MASBQ-MU2	1CT:1CT	1CT:1CT	YES	---	-1.0	-18	-16	-12	-10
ARJ11B-MBSBQ-A-B-EMU2	1CT:1CT	1CT:1CT	YES	G/Y	-1.0	-18	-16	-12	-10
ARJ11B-MFSBQ-A-A-EMU2	1CT:1CT	1CT:1CT	YES	G/G	-1.0	-18	-16	-12	-10
ARJ11B-MASAJ-MU2	1CT:1CT	1CT:1CT	YES	---	-1.0	-18	-16	-12	-10
ARJ11B-MASBR-QU2	1CT:1.414CT	1CT:1CT	YES	---	-1.0	-18	-16	-12	-10
ARJ11B-MFSBR-A-A-EQU2	1CT:1.414CT	1CT:1CT	YES	G/G	-1.0	-18	-16	-12	-10
ARJ11B-MDSAO-LU2	1CT:1	1CT:1CT	NO	---	-1.0	-18	-16	-12	-10
ARJ11B-MESAO-A-B-ELU2	1CT:1	1CT:1CT	NO	G/Y	-1.0	-18	-16	-12	-10
ARJ11B-MESAO-A-A-ELU2	1CT:1	1CT:1CT	NO	G/G	-1.0	-18	-16	-12	-10
ARJ11B-MASAO-LU2	1CT:1	1CT:1CT	YES	---	-1.0	-18	-16	-12	-10
ARJ11B-MBSAO-A-B-ELU2	1CT:1	1CT:1CT	YES	G/Y	-1.0	-18	-16	-12	-10
ARJ11B-MFSAO-A-A-ELU2	1CT:1	1CT:1CT	YES	G/G	-1.0	-18	-16	-12	-10
ARJ11B-MFSAO-BA-A-GLU2	1CT:1	1CT:1CT	YES	YG/G	-1.0	-18	-16	-12	-10
ARJ11B-MBSAP-A-B-ELU2	1CT:1	1CT:1CT	YES	G/Y	-1.0	-18	-16	-12	-10
ARJ11B-MASAC-MU2	1CT:1CT	1CT:1CT	YES	---	-1.0	-18	-16	-12	-10
ARJ11B-MASAD-OW2	1CT:1.41CT	1CT:1.41CT	YES	---	---	--	--	--	--
ARJ11B-MBSAI-A-B-EMU2	1CT:1CT	1CT:1CT	YES	G/Y	-1.0	-18	-16	-12	-10
ARJ11B-MASCC-MU2	1CT:1CT	1CT:1CT	YES	---	-1.0	-18	-16	-12	-10
ARJ11B-MESBW-B-A-EMU2	1CT:1CT	1CT:1CT	NO	Y/G	-1.0	-18	-16	-12	-10
ARJ11B-MDSCD-MU2	1CT:1CT	1CT:1CT	NO	---	-1.0	-20 min (30M Hz)	--	--	-15 typ (80MHz)



12117 Bee Caves Rd Bldg-3, Ste 200
 Bee Cave, TX 78738
 Ph: (512) 371-6159
 Fax: (512) 351-8858

REVISION B : 7/2/2025

ABRACON IS
 ISO9001-2015
 CERTIFIED

RJ45 10/100 Base-T Jack with Magnetic Module



ARJ11B Series

Request Samples



Check Inventory



16.26 x 13.84 x 21.59mm
ROHS/ROHS II COMPLIANT
MSL Level = N/A

Electrical Specifications

Part Number	Crosstalk (dB min)			DCMR (dB min)			Hipot (Vrms)
	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz	
ARJ11B-MASAA-MU2 to ARJ11B-MASAI-MU2	-45	-40	-35	-35	-30	-25	1500
ARJ11B-MASAJ-MU2 to ARJ11B-MASAM-MU2	-45	-40	-35	-35	-30	-25	1500
ARJ11B-MASAN-LU2 to ARJ11B-MASBF-LU2	-45	-40	-35	-35	-30	-25	1500
ARJ11B-MESCB-A-B-ELT2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MASCB-LT2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MBSCB-A-B-ELT2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MDSBQ-MU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MESBQ-A-B-EMU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MASBQ-MU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MBSBQ-A-B-EMU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MFSBQ-A-A-EMU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MASAJ-MU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MASBR-QU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MFSBR-A-A-EQU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MDSAO-LU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MESAO-A-B-ELU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MESAO-A-A-ELU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MASAO-LU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MBSAO-A-B-ELU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MFSAO-A-A-ELU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MFSAO-BA-A-GLU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MBSAP-A-B-ELU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MASAC-MU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MASAD-OW2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MBSAI-A-B-EMU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MASCC-MU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MESBW-B-A-EMU2	-40	-35	-30	-30	-20	-20	1500
ARJ11B-MDSCD-MU2	--	--	--	--	--	--	1500

DCMR: Differential to Common Mode Rejection

Contact Abracon for more custom configurations. See options to build a custom configuration.

Operating Temperature: 0°C to +70°C

Storage Temperature: -40°C to +85°C

ARJ11C Series is RoHS Compliant.

Operating life: 750 Cycles min.



12117 Bee Caves Rd Bldg-3, Ste 200
Bee Cave, TX 78738
Ph: (512) 371-6159
Fax: (512) 351-8858

REVISION B : 7/2/2025

ABRACON IS
ISO9001-2015
CERTIFIED

RJ45 10/100 Base-T Jack with Magnetic Module



ARJ11B Series

Request Samples

Check Inventory

16.26 x 13.84 x 21.59mm
 ROHS/ROHS II COMPLIANT
 MSL Level = N/A

Part Identification

ARJ11B - - - -

Mechanical	Schematic	Left LED color (e.g. B for Yellow, AB for Green-Yellow)	Right LED color (e.g. B for Yellow, AB for Green-Yellow)	LED polarity	Turns Ratio (Tx)	Turns Ratio (Rx)	Gold plating
MA ~ MF (Please see mechanical section)	SAA ~ SCC (Please see schematic section)	Blank: No LED A: Green B: Yellow C: Amber D: Orange	Blank: No LED A: Green B: Yellow C: Amber D: Orange	Blank: No LED E ~ J (Please see LED polarity section)	K: 1CT:1.41 L: 1CT:1 M: 1CT:1CT N: 1.414:1CT O: 1CT:1.41CT P: 1:2CT Q: 1:1.414CT R: 1CT:2.5	S: 1CT:1.41 T: 1CT:1 U: 1CT:1CT V: 1.414:1CT W:1CT:1.41CT X: 1:2CT Y: 1:1.414CT Z: 1CT:2.5	1: 3u " 2: 6u " 3: 15u " 4: 30u " 5: 50u "

Materials

Housing Material:

MATERIAL: NYLON GF (Fr50) UL94V-0
 STANDARD COLOR: BLACK

Insert Material:

MATERIAL: Phos-Bronze C5210 EH--0.35mm Thickness
 Insert -PBT GF UL94V-0
 1.PLATING (1) NICKEL
 2.PLATING (2) 100%Sn
 3.PLATING (3) GOLD (3u " ~50u ") (see options)

Plate Material:

PBT GF UL 94V-0

Contact pin Material:

MATERIAL: Phos-Bronze C5191---0.35mm Thickness
 1.PLATING (1) NICKEL
 2.PLATING (2) 100%Sn

Shielding Material:

BRASS C2680 PLATING NICKEL

Note: No material substitutions allowed without prior approval by customers in writing



12117 Bee Caves Rd Bldg-3, Ste 200
 Bee Cave, TX 78738
 Ph: (512) 371-6159
 Fax: (512) 351-8858

REVISION B : 7/2/2025

ABRACON IS
 ISO9001-2015
 CERTIFIED

RJ45 10/100 Base-T Jack with Magnetic Module



ARJ11B Series

Request Samples



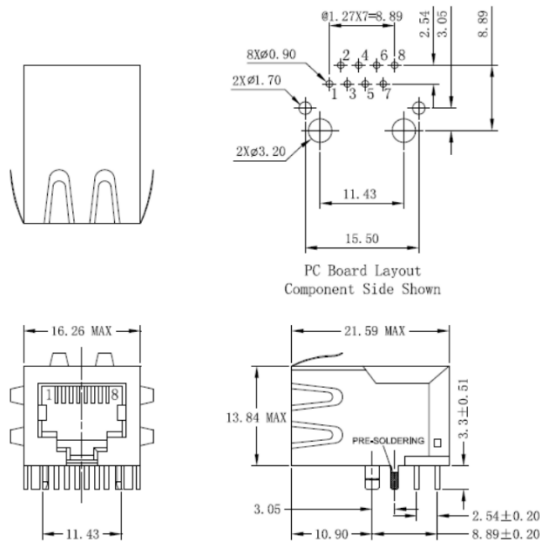
Check Inventory



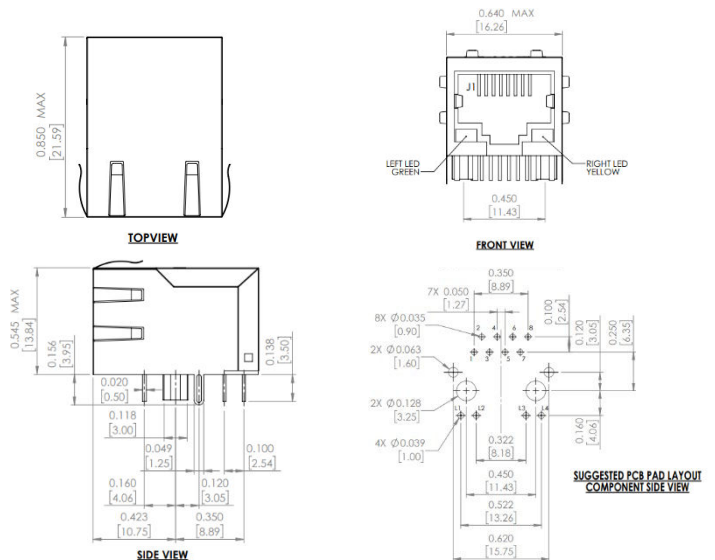
16.26 x 13.84 x 21.59mm
ROHS/ROHS II COMPLIANT
MSL Level = N/A

Mechanical Specifications

MA

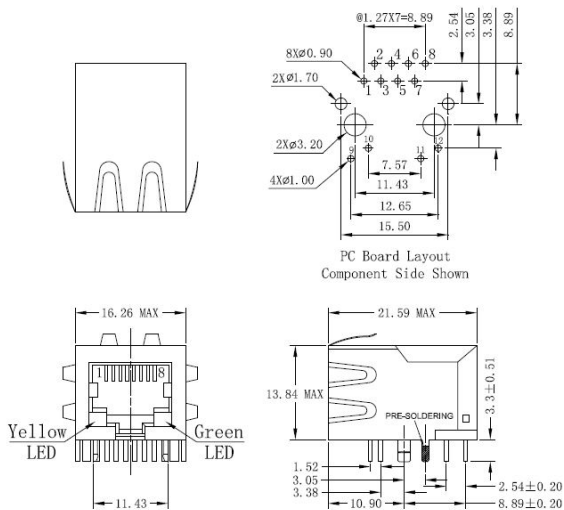


MB



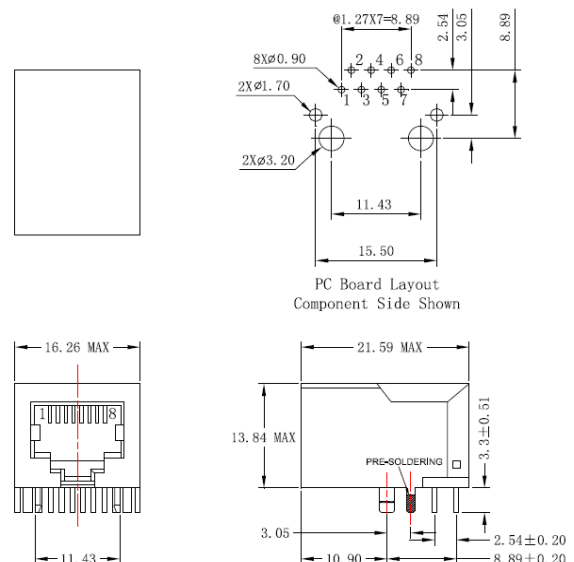
LED pins are parallel

MC



LED pins are oblique

MD



Dimensions: mm (Unless otherwise specified, tolerances are ± 0.25mm)



12117 Bee Caves Rd Bldg-3, Ste 200
 Bee Cave, TX 78738
 Ph: (512) 371-6159
 Fax: (512) 351-8858

REVISION B : 7/2/2025

ABRACON IS
 ISO9001-2015
 CERTIFIED

RJ45 10/100 Base-T Jack with Magnetic Module



ARJ11B Series

Request Samples



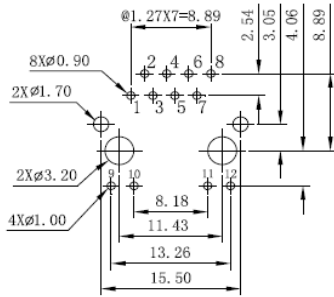
Check Inventory



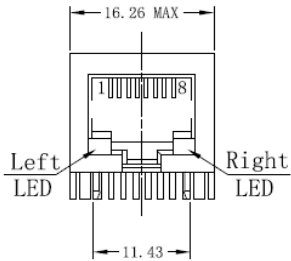
16.26 x 13.84 x 21.59mm
ROHS/ROHS II COMPLIANT
MSL Level = N/A

Mechanical Specifications

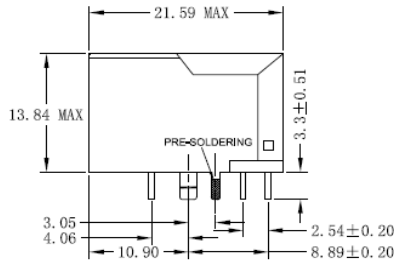
ME



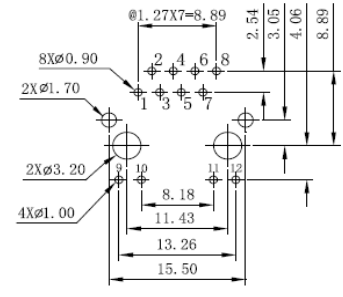
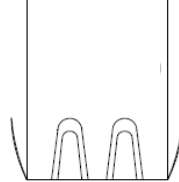
PC Board Layout
Component Side Shown



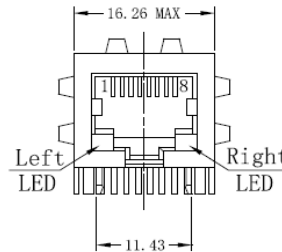
LED pins are parallel



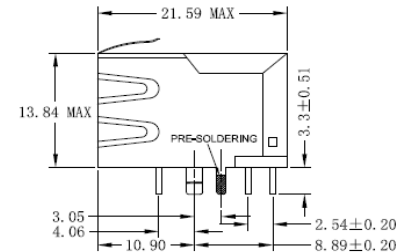
MF



PC Board Layout
Component Side Shown



LED pins are parallel



Dimensions: mm (Unless otherwise specified, tolerances are ± 0.25mm)



12117 Bee Caves Rd Bldg-3, Ste 200
 Bee Cave, TX 78738
 Ph: (512) 371-6159
 Fax: (512) 351-8858

REVISION B : 7/2/2025

ABRACON IS
 ISO9001-2015
 CERTIFIED

RJ45 10/100 Base-T Jack with Magnetic Module



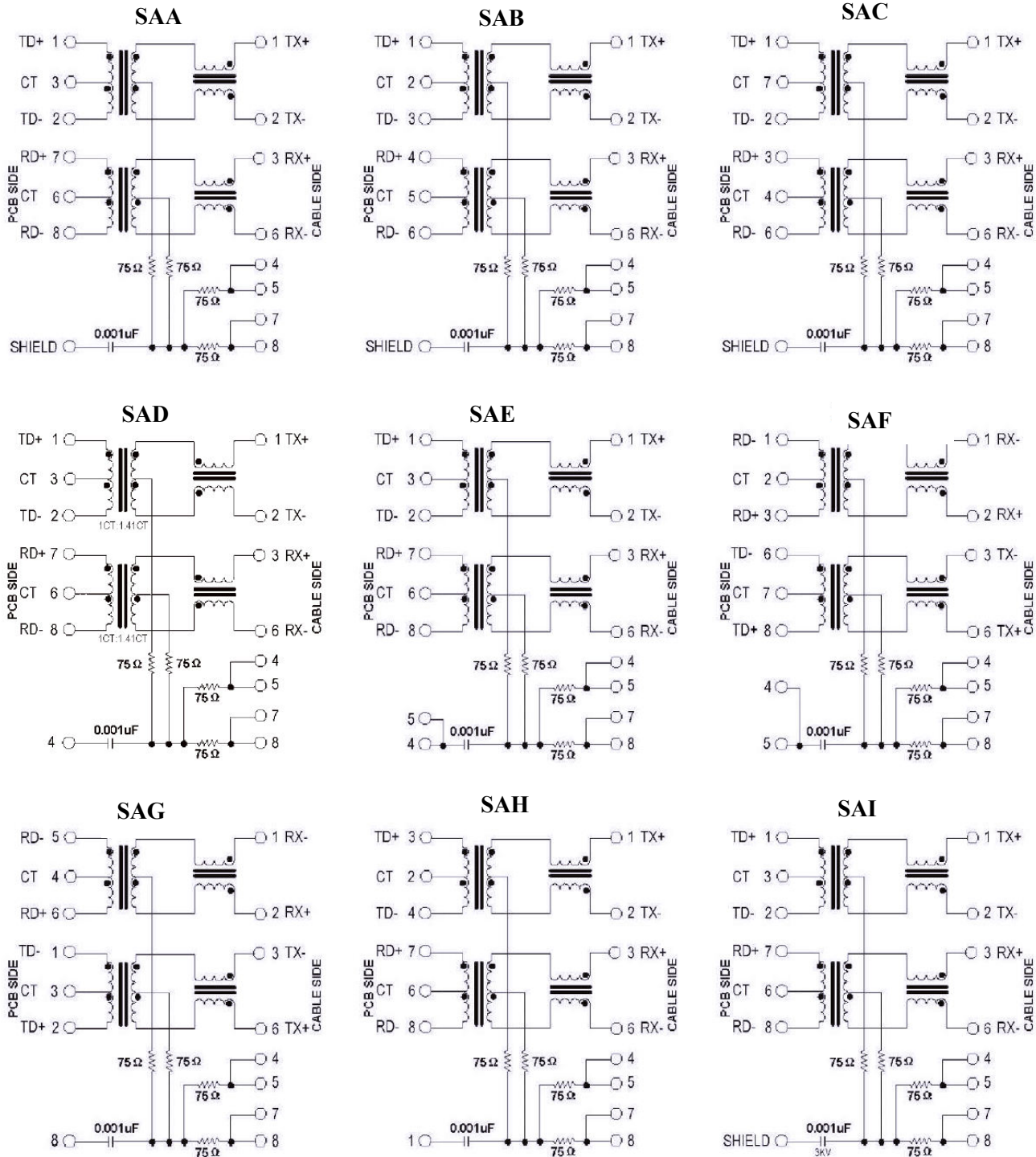
ARJ11B Series

Request Samples

Check Inventory

16.26 x 13.84 x 21.59mm
 ROHS/ROHS II COMPLIANT
 MSL Level = N/A

Schematics



12117 Bee Caves Rd Bldg-3, Ste 200
 Bee Cave, TX 78738
 Ph: (512) 371-6159
 Fax: (512) 351-8858

REVISION B : 7/2/2025

ABRACON IS
 ISO9001-2015
 CERTIFIED

RJ45 10/100 Base-T Jack with Magnetic Module



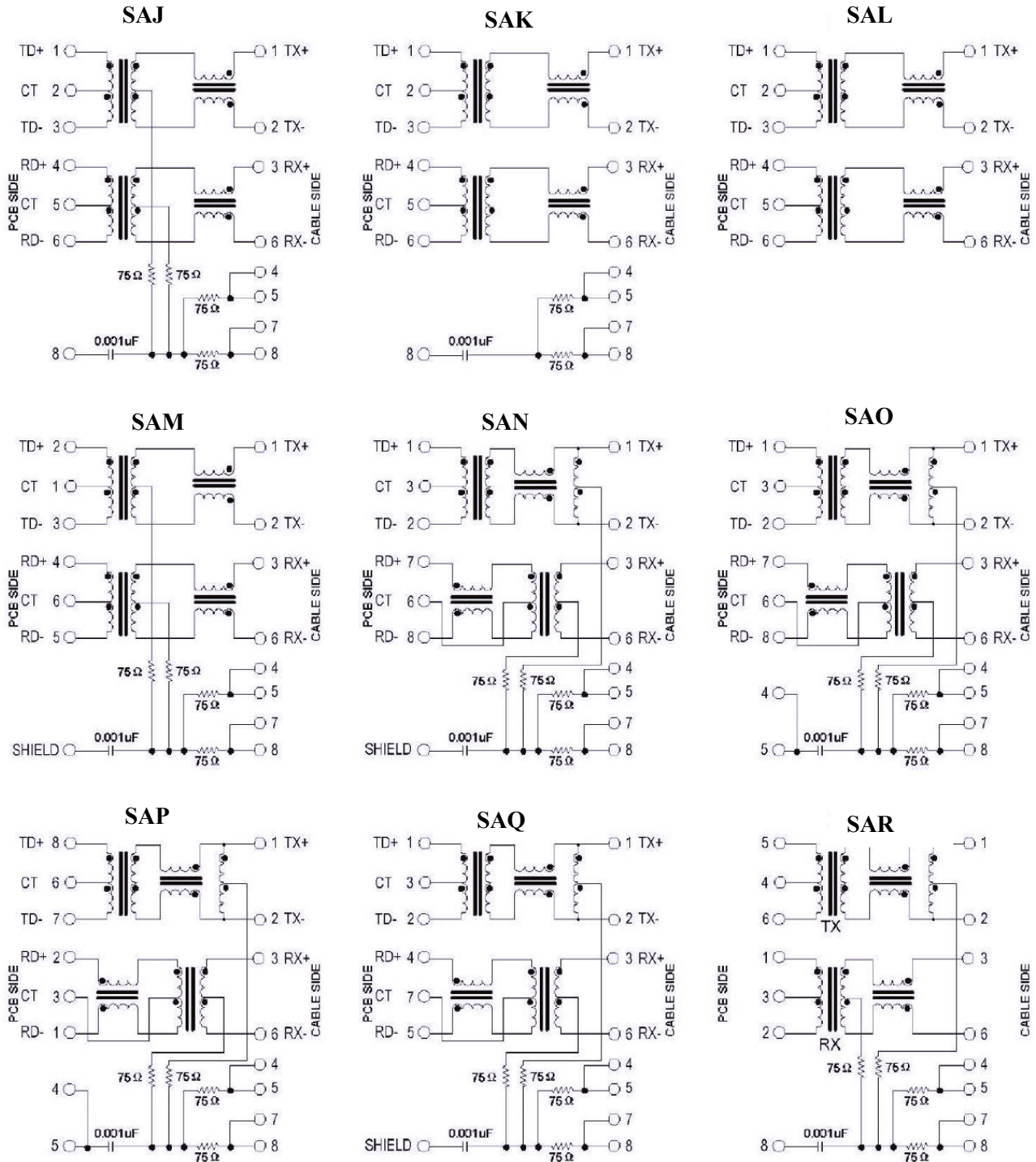
ARJ11B Series

Request Samples

Check Inventory

16.26 x 13.84 x 21.59mm
 ROHS/ROHS II COMPLIANT
 MSL Level = N/A

Schematics



12117 Bee Caves Rd Bldg-3, Ste 200
 Bee Cave, TX 78738
 Ph: (512) 371-6159
 Fax: (512) 351-8858

REVISION B : 7/2/2025

ABRACON IS
 ISO9001-2015
 CERTIFIED

RJ45 10/100 Base-T Jack with Magnetic Module



ARJ11B Series

Request Samples

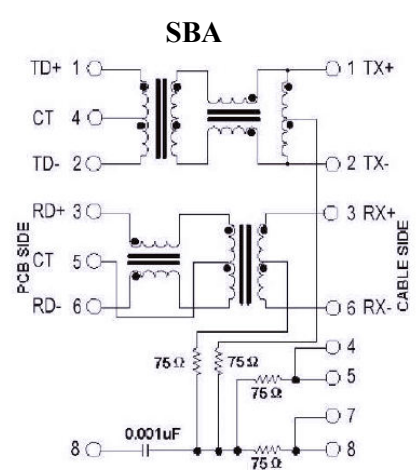
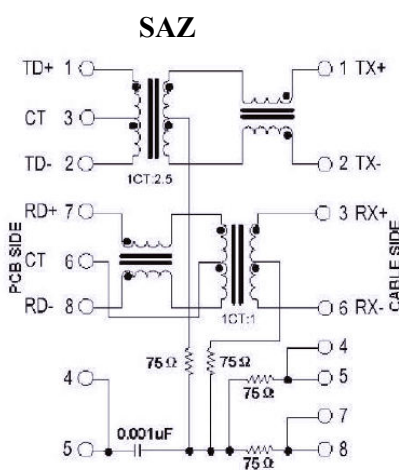
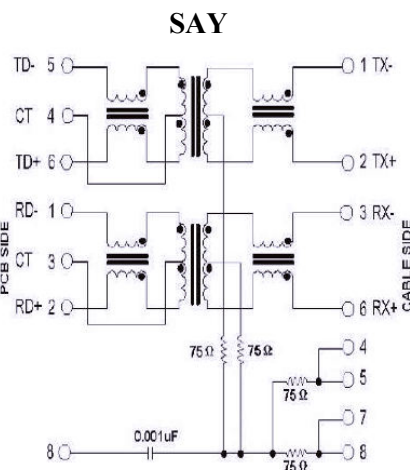
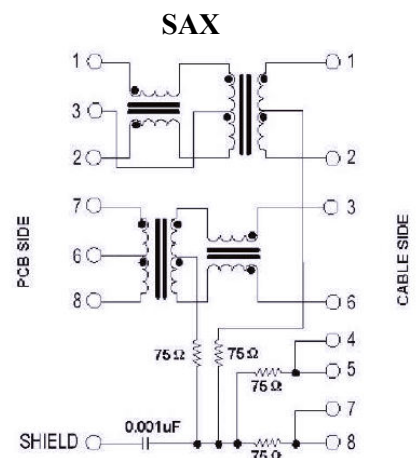
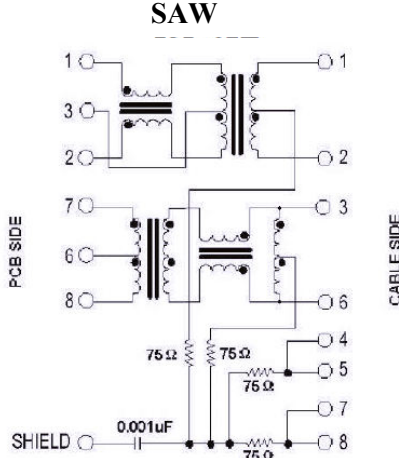
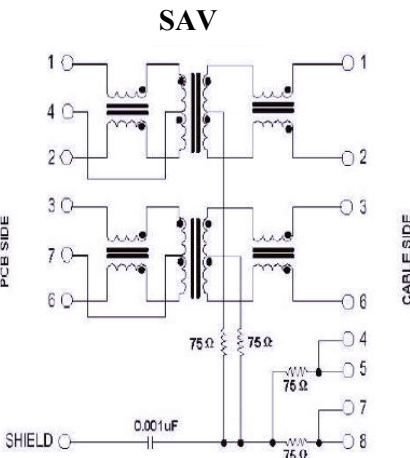
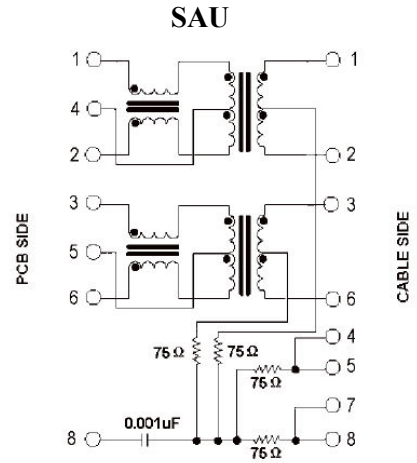
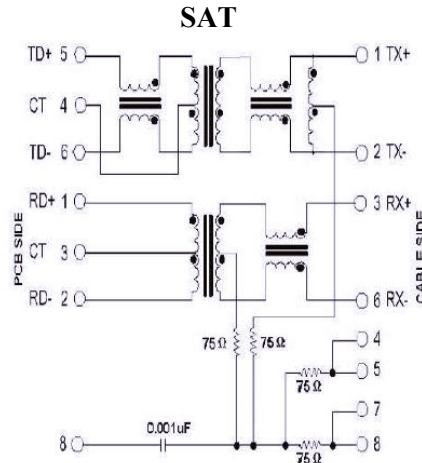
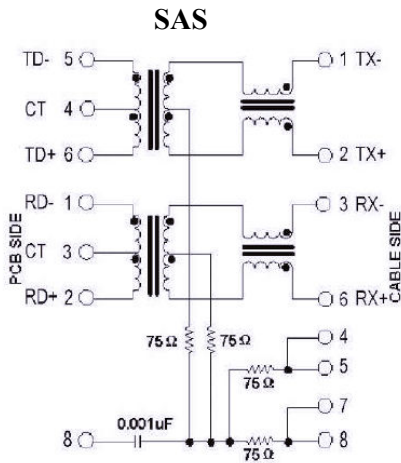


Check Inventory



16.26 x 13.84 x 21.59mm
 ROHS/ROHS II COMPLIANT
 MSL Level = N/A

Schematics



12117 Bee Caves Rd Bldg-3, Ste 200
 Bee Cave, TX 78738
 Ph: (512) 371-6159
 Fax: (512) 351-8858

REVISION B : 7/2/2025

ABRACON IS
 ISO9001-2015
 CERTIFIED

RJ45 10/100 Base-T Jack with Magnetic Module



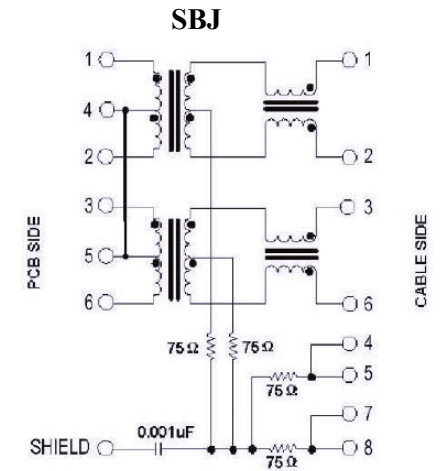
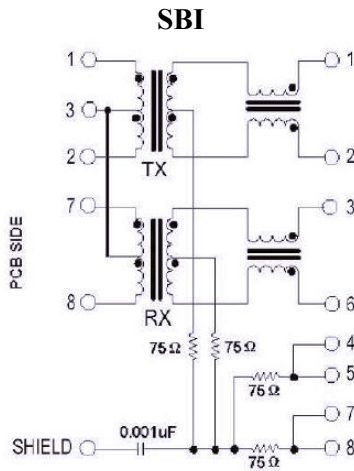
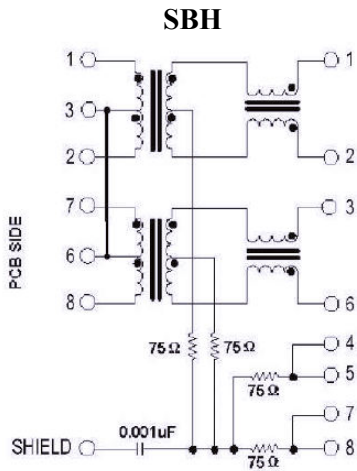
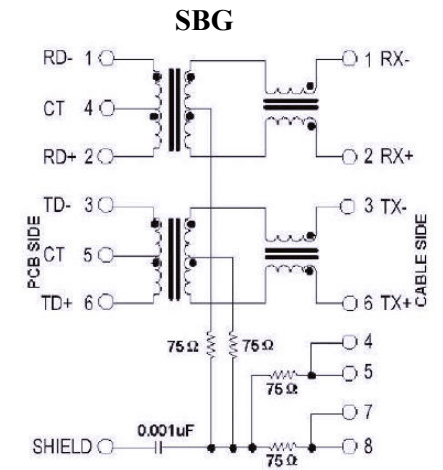
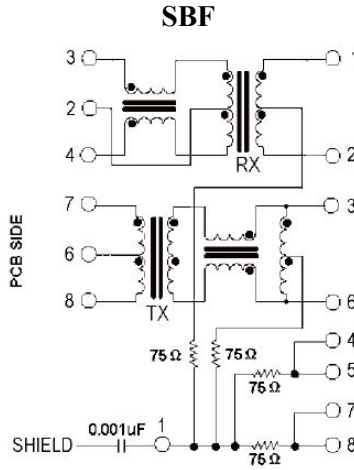
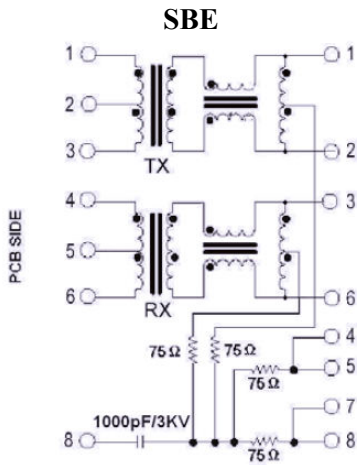
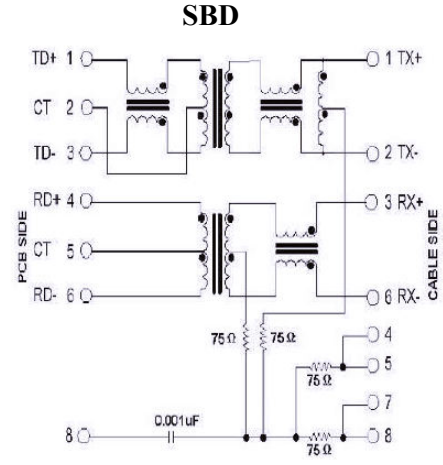
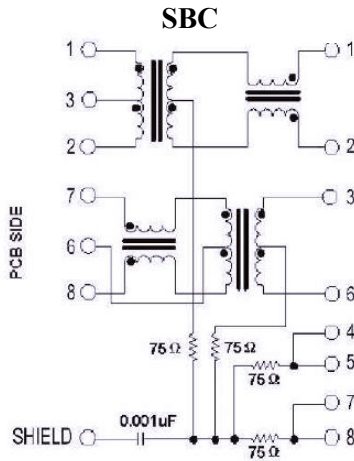
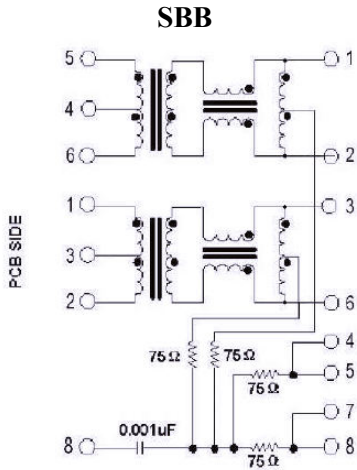
ARJ11B Series

Request Samples

Check Inventory

16.26 x 13.84 x 21.59mm
 ROHS/ROHS II COMPLIANT
 MSL Level = N/A

Schematics



12117 Bee Caves Rd Bldg-3, Ste 200
 Bee Cave, TX 78738
 Ph: (512) 371-6159
 Fax: (512) 351-8858

REVISION B : 7/2/2025

ABRACON IS
 ISO9001-2015
 CERTIFIED

RJ45 10/100 Base-T Jack with Magnetic Module



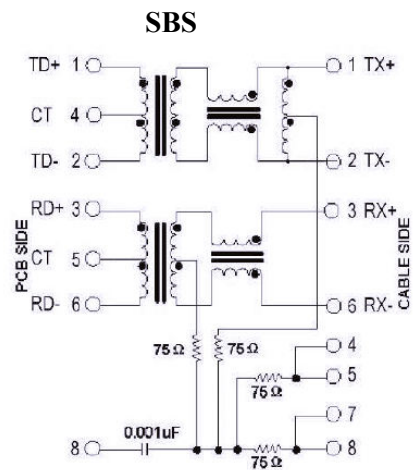
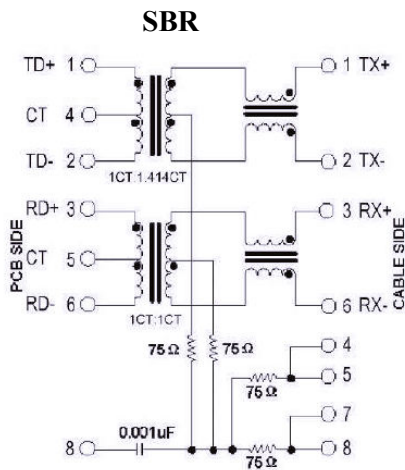
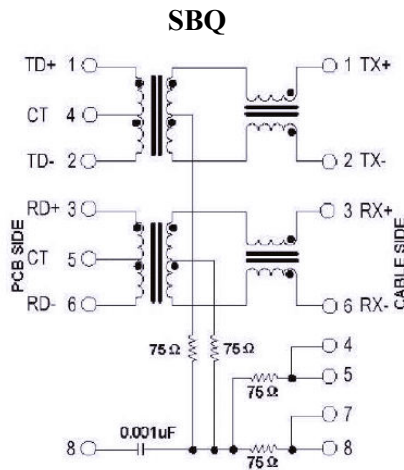
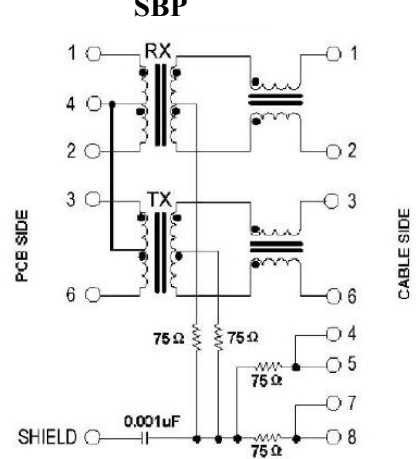
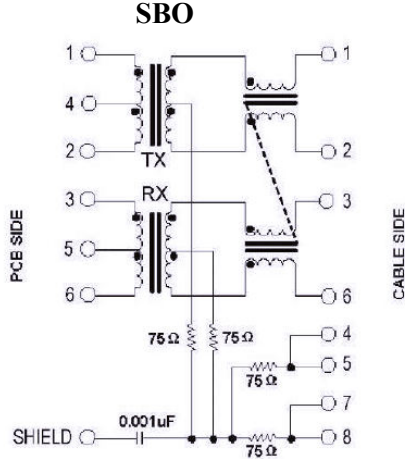
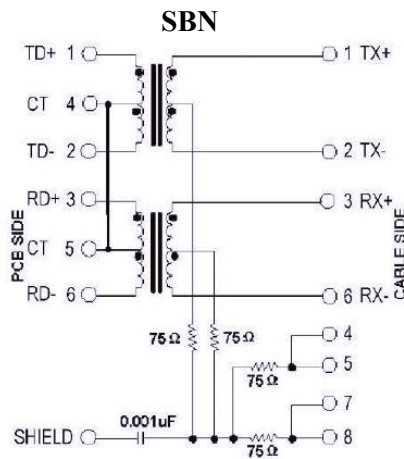
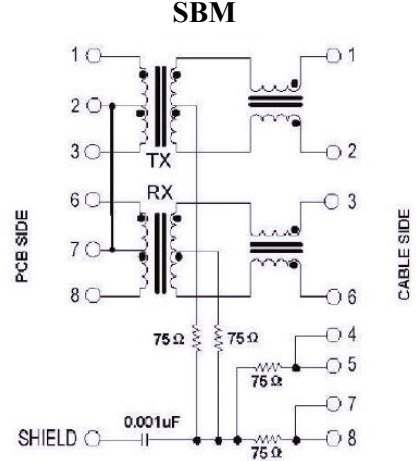
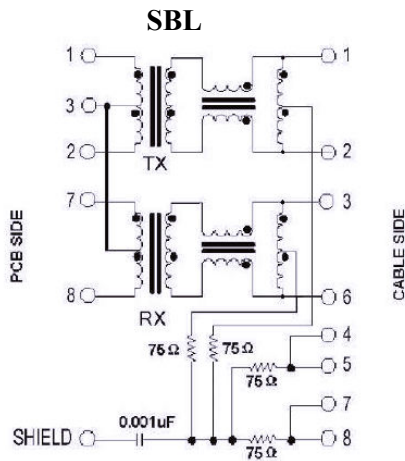
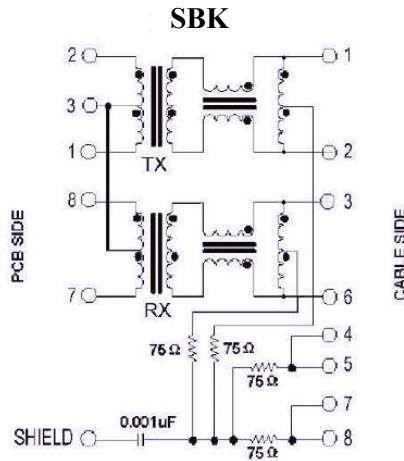
ARJ11B Series

Request Samples

Check Inventory

16.26 x 13.84 x 21.59mm
 ROHS/ROHS II COMPLIANT
 MSL Level = N/A

Schematics



RJ45 10/100 Base-T Jack with Magnetic Module



ARJ11B Series

Request Samples

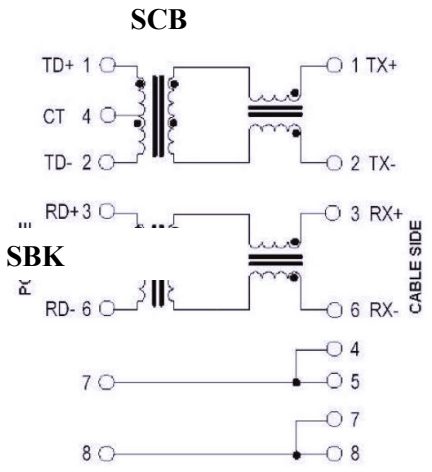
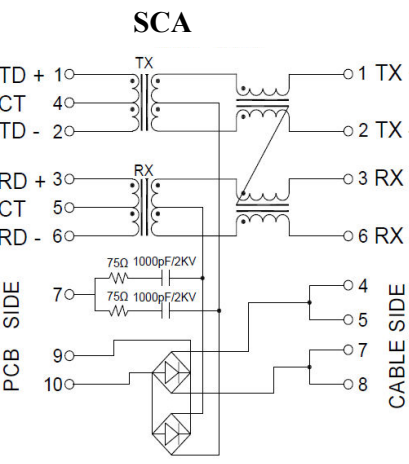
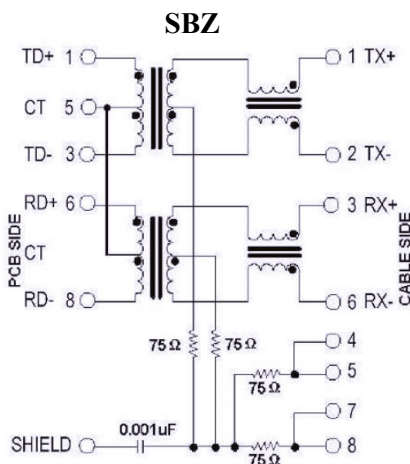
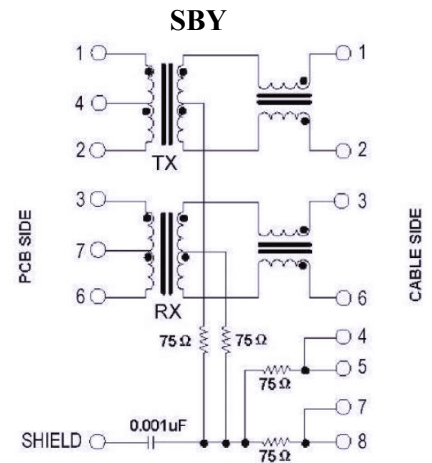
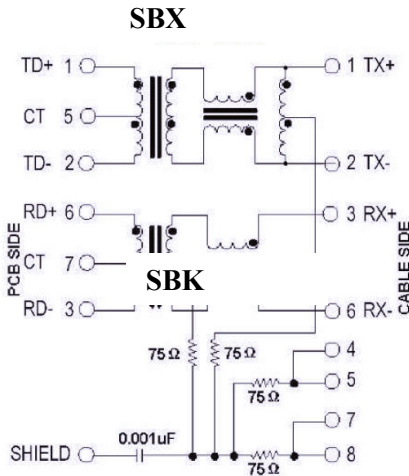
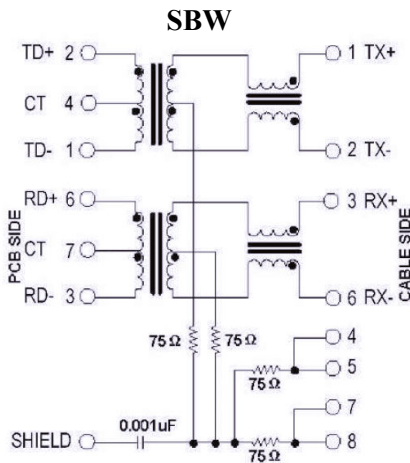
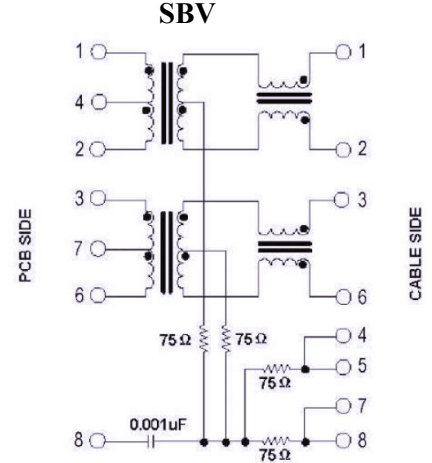
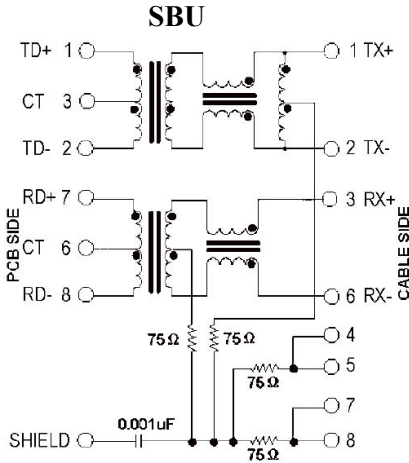
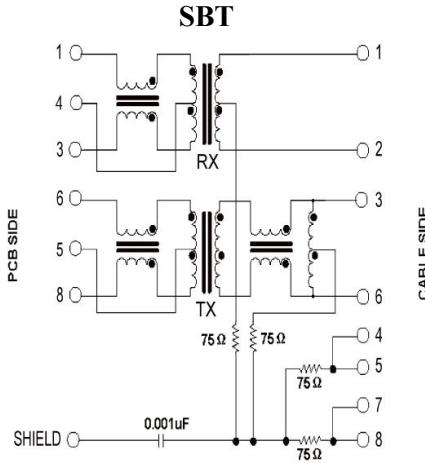


Check Inventory



16.26 x 13.84 x 21.59mm
 ROHS/ROHS II COMPLIANT
 MSL Level = N/A

Schematics



12117 Bee Caves Rd Bldg-3, Ste 200
 Bee Cave, TX 78738
 Ph: (512) 371-6159
 Fax: (512) 351-8858

REVISION B : 7/2/2025

ABRACON IS
 ISO9001-2015
 CERTIFIED

RJ45 10/100 Base-T Jack with Magnetic Module



ARJ11B Series

Request Samples

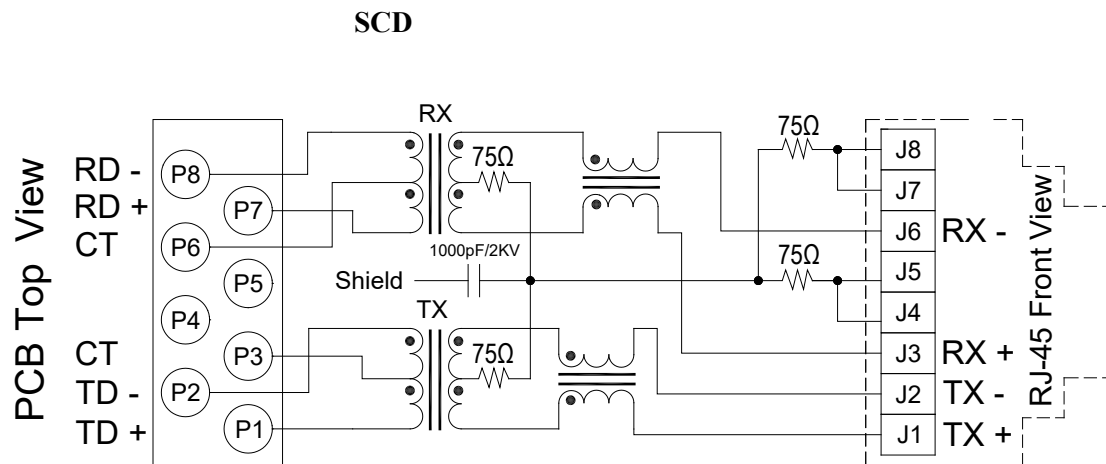
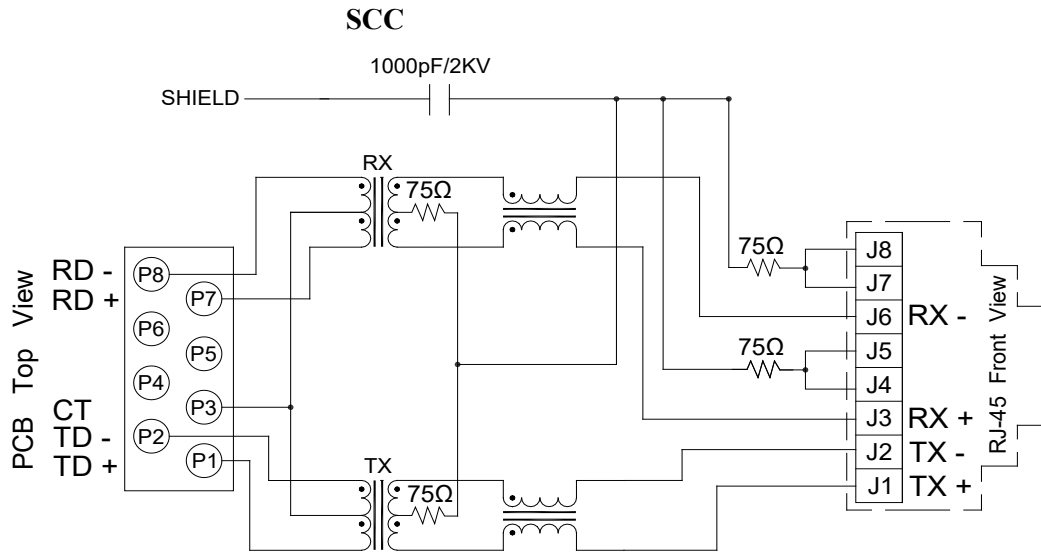


Check Inventory



16.26 x 13.84 x 21.59mm
ROHS/ROHS II COMPLIANT
MSL Level = N/A

Schematics



RJ45 10/100 Base-T Jack with Magnetic Module



ARJ11B Series

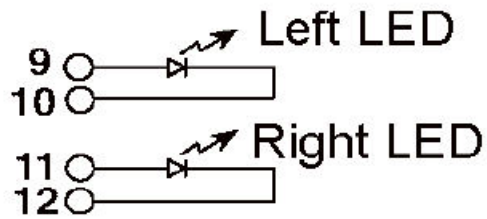
Request Samples

Check Inventory

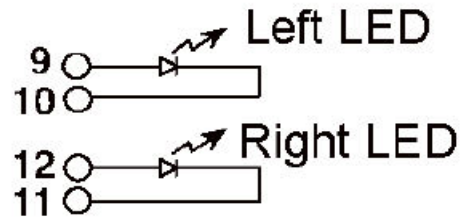
16.26 x 13.84 x 21.59mm
 ROHS/ROHS II COMPLIANT
 MSL Level = N/A

LED polarity

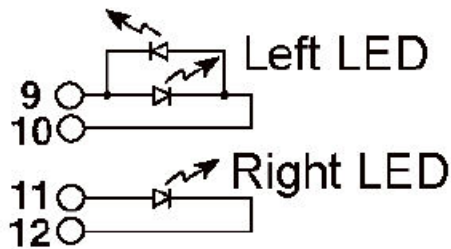
E



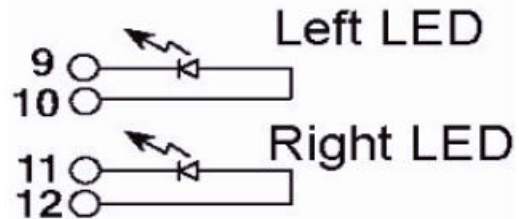
F



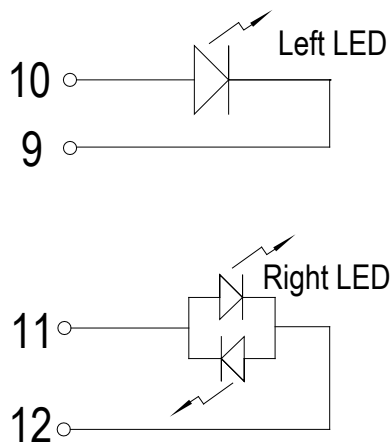
G



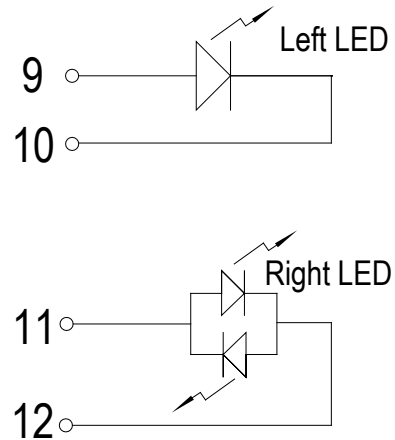
H



I



J



$V_{in}=2.1V_{dc}$ TYP.

2.5Vdc MAX.

RJ45 10/100 Base-T Jack with Magnetic Module



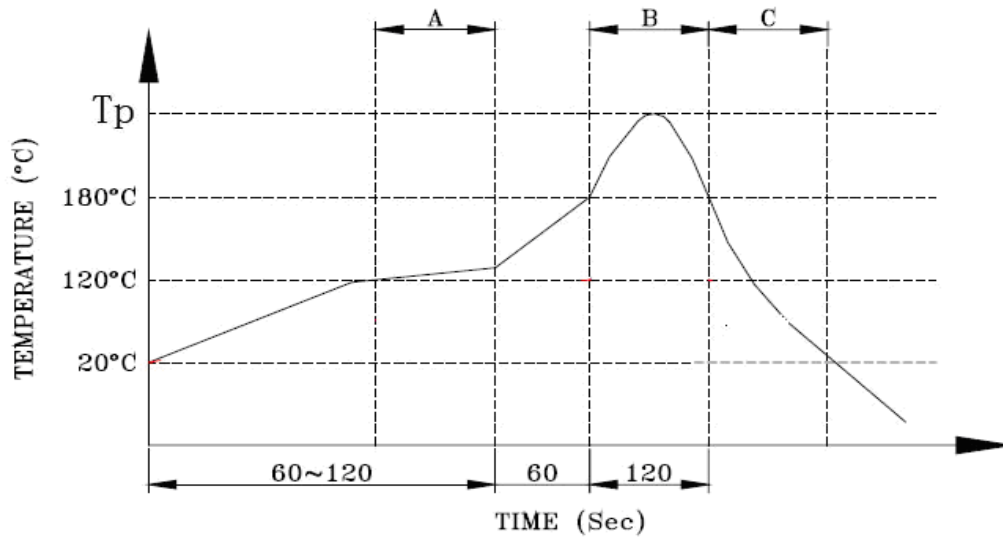
ARJ11B Series

Request Samples

Check Inventory

16.26 x 13.84 x 21.59mm
ROHS/ROHS II COMPLIANT
MSL Level = N/A

Reflow Profile



A. Preheating B. Soldering C. Gradual Cooling

Peak temperature (Tp): $250 \pm 10^\circ\text{C}$
Peak temperature (Tp) time: 5sec max

RJ45 10/100 Base-T Jack with Magnetic Module



ARJ11B Series

Request Samples

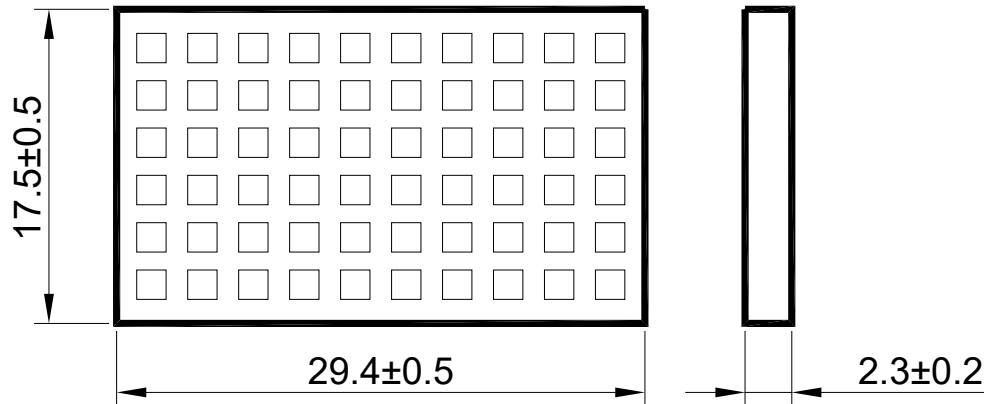
Check Inventory

16.26 x 13.84 x 21.59mm
ROHS/ROHS II COMPLIANT
MSL Level = N/A

Packaging

60 pcs/tray

Packaging material: PET



Dimensions: mm

ATTENTION: Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.



12117 Bee Caves Rd Bldg-3, Ste 200
Bee Cave, TX 78738
Ph: (512) 371-6159
Fax: (512) 351-8858

REVISION B : 7/2/2025

ABRACON IS
ISO9001-2015
CERTIFIED

Brand	Affected PN	Discontinued/EOL PN
Abracon	All parts with prefix ARJ11B	

Added PN	Series	ECO#
	ARJ11B	M1622

Datasheet Link

<https://abracon.com/Magnetics/lan/ARJ11B.pdf>

ECN Notification Link

<https://abracon.com/downloads/ECN-PCN/ECN-PCN-M1622-ARJ11B-MESBQ-A-B-EMU2.pdf>