ABRACON

Engineering/Process Change Notice

ECN/PCN No.: M1226

For Manufacturer			
Product Description: **RJ45, Single Port, 100/1000/2.5G/5G Base-T Magnetics Module**	**Abracon Part Number / Part Series:** **ARJM11 series**	☐ Documentation only ☒ ECN ☐ EOL	☐ Series ☒ Part Number(s)
Affected Revision: E	**New Revision:** F	**Application:**	☐ Safety ☒ Non-Safety

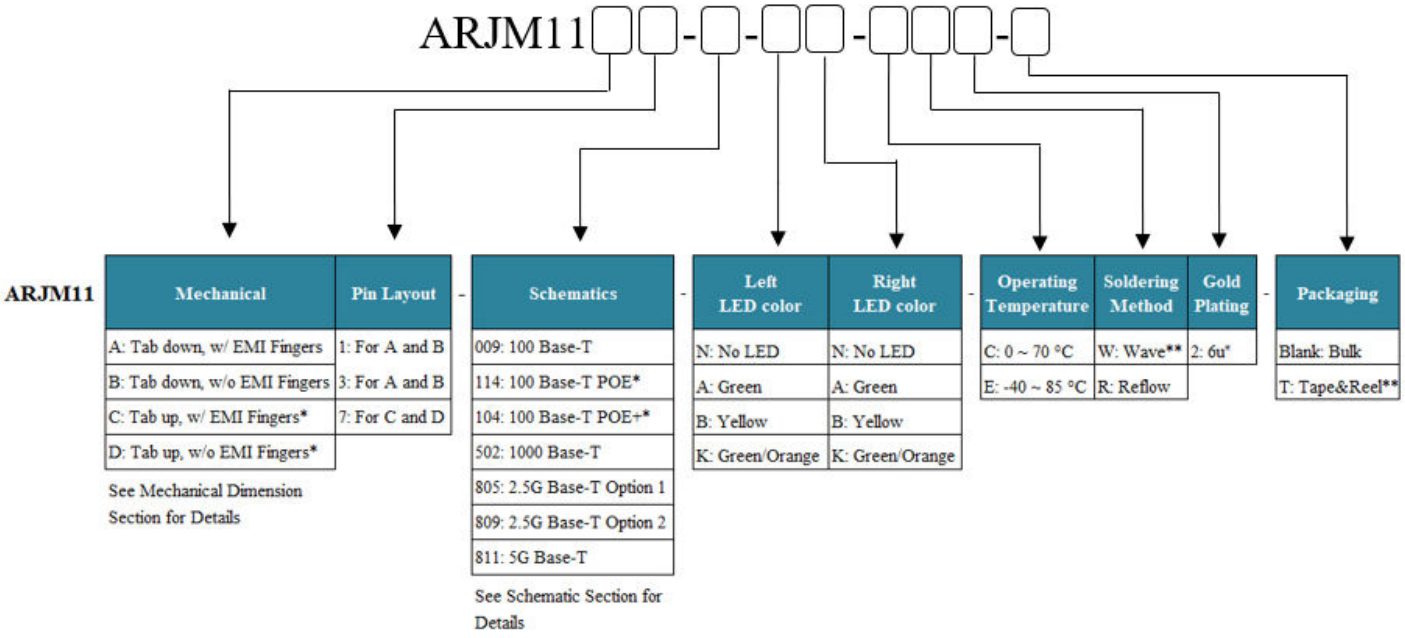
Prior to Change:

Electrical Specifications

Parameters	Minimum	Typical	Maximum	Units	Notes
Turn Ratio (±3%)		1CT:1CT			100kHz, 0.1V
Inductance	350			µH	100kHz, 0.1V, 8mADC
	200				For 2.5G Base-T only
	160				For 5G Base-T only
Leakage Inductance			0.5	µH	100kHz, 0.1V
			0.3		For 2.5G Base-T and 5G Base-T
DC Resistance			1.5	Ω	
Hipot	2250			VDC	1mA Max Complies with IEEE 802.3
Operating Temperature	-40		+85	°C	See options
Storage Temperature	-40		+85	°C	
100 Base-T					
Insertion Loss	-1.1			dB	0.5-100MHz
Return Loss			-18	dB	0.5-30MHz
			-18+20log(f/30)*		30.1-60MHz
			-12		60.1-80MHz
Crosstalk			-35	dB	0.5-40MHz
			-33+20log(f/50)*		40.1-100MHz
CMRR			-30	dB	0.5-100MHz
1000 Base-T					
Insertion Loss	-1.1			dB	0.5-100MHz
Return Loss			-18	dB	0.5-40MHz
			-12+20log(f/80)*		40.1-100MHz
Crosstalk			-35	dB	0.5-40MHz
			-33+20log(f/50)*		40.1-100MHz
CMRR			-30	dB	0.5-100MHz
2.5G Base-T					
Insertion Loss	-0.5			dB	1-50MHz
	-1.0				50-125MHz
Return Loss			-20	dB	1-40MHz
			-20+15log(f/40)*		40-200MHz
Crosstalk			-30	dB	25-125MHz
5G Base-T					
Insertion Loss	-0.5			dB	1-50MHz
	-1.0				50-125MHz
	-2.0				125-250MHz
Return Loss			-20	dB	1-40MHz
			-20+15log(f/40)*		40-250MHz

Crosstalk			-30	dB	1-125MHz
			-25		125-250MHz
PoE					
Balanced DC line current			350	mA	@57VDC continuous
			500		@57VDC for 200ms
PoE+					
Balanced DC line current			600	mA	@57VDC continuous
			720		@57VDC for 200ms

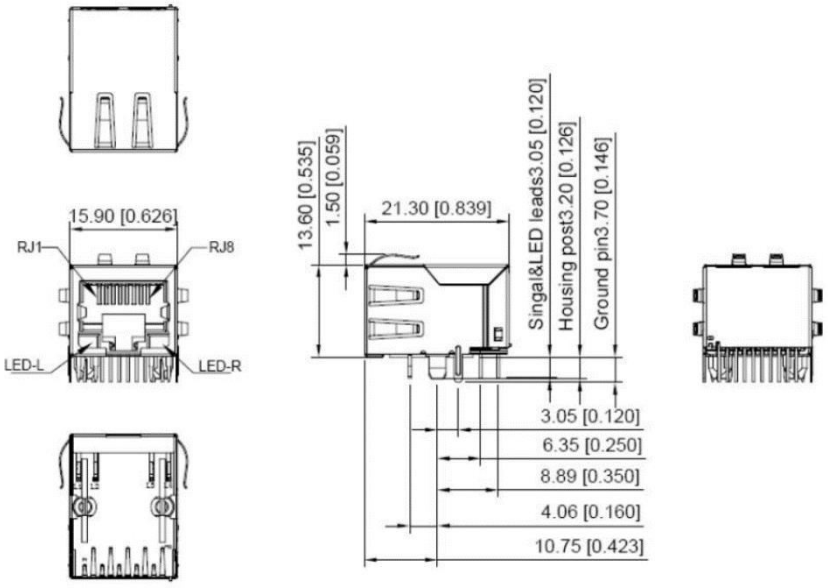
Part Number Identification



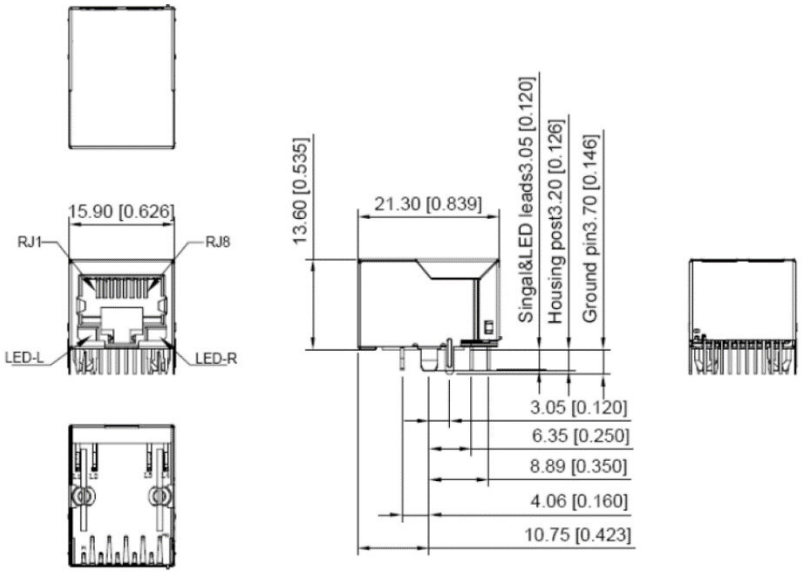
ARJM11	Mechanical	Pin Layout	Schematics	Left LED color	Right LED color	Operating Temperature	Soldering Method	Gold Plating	Packaging
	A: Tab down, w/ EMI Fingers	1: For A and B	009: 100 Base-T	N: No LED	N: No LED	C: 0 ~ 70 °C	W: Wave**	2: 6u"	Blank: Bulk
	B: Tab down, w/o EMI Fingers	3: For A and B	114: 100 Base-T POE*	A: Green	A: Green	E: -40 ~ 85 °C	R: Reflow		T: Tape&Reel**
	C: Tab up, w/ EMI Fingers*	7: For C and D	104: 100 Base-T POE+*	B: Yellow	B: Yellow				
	D: Tab up, w/o EMI Fingers*		502: 1000 Base-T	K: Green/Orange	K: Green/Orange				
	See Mechanical Dimension Section for Details		805: 2.5G Base-T Option 1						
			809: 2.5G Base-T Option 2						
			811: 5G Base-T						
			See Schematic Section for Details						

7.0 Mechanical Dimensions

A: Tab Down, w/ EMI Fingers



B: Tab Down, w/o EMI Fingers

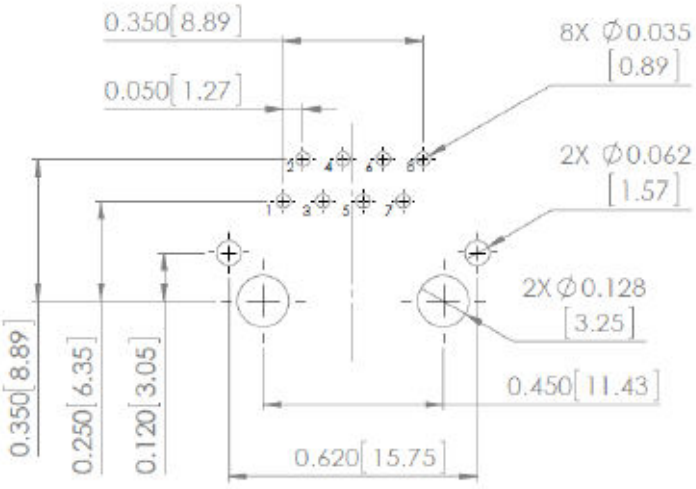


Dimensions: mm[inch] (Unless otherwise specified, all tolerances are ±0.25[0.010])

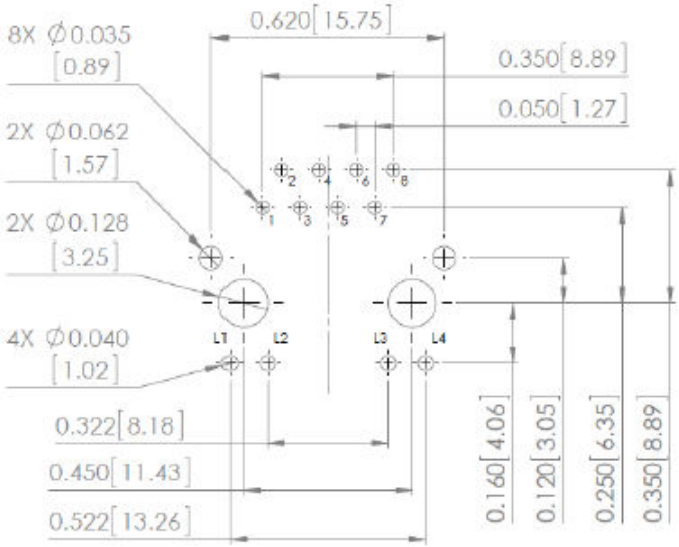
Recommended Land Patterns

Pin Layout = 1 (Horizontal LEDs/ No LEDs)

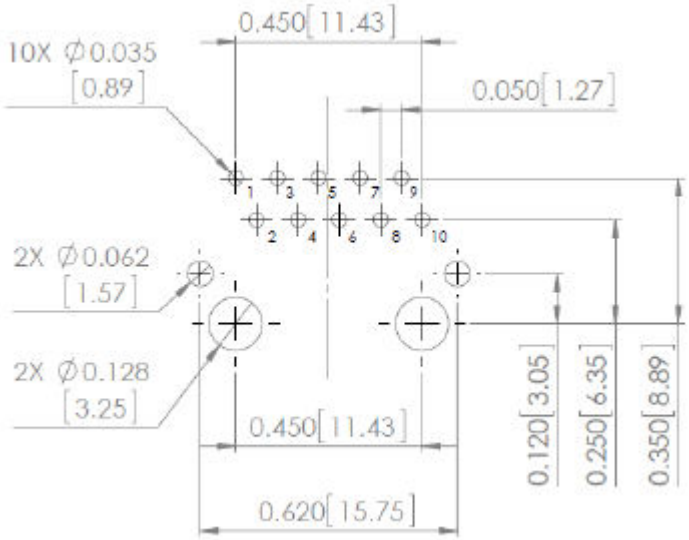
8 Pins, no LED
For 100 Base-T



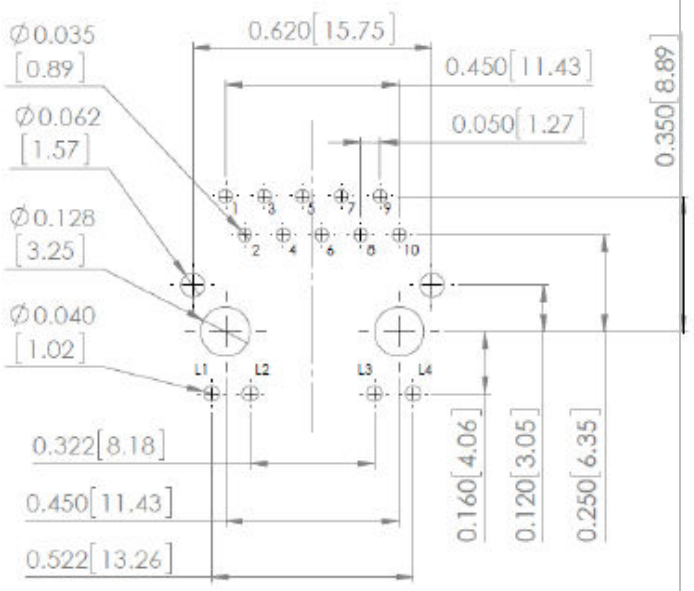
8 Pins, w/ LED
For 100 Base-T



10 Pins, no LED
For 100 PoE/1000/2.5G/5G Base-T



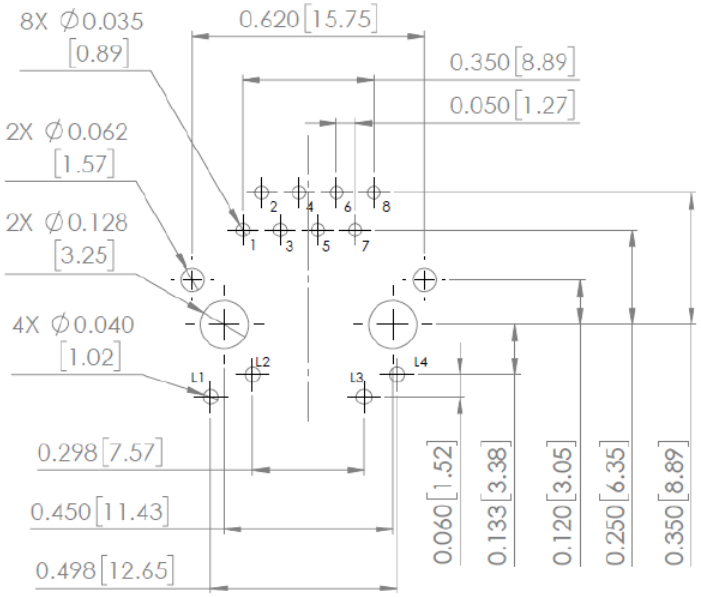
10 Pins, w/ LED
For 100 PoE/1000/2.5G/5G Base-T



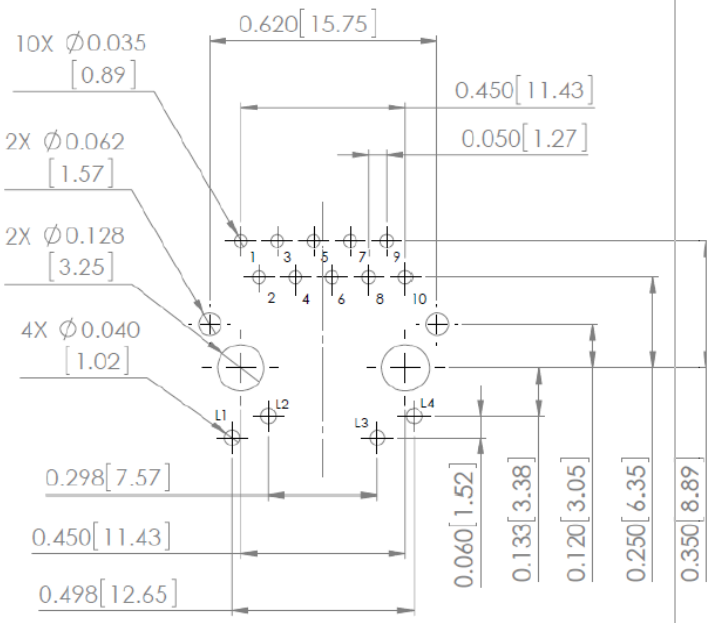
Dimensions: mm[inch]

Pin Layout = 3 (diagonal LEDs)

8 Pins, no LED
For 100 Base-T

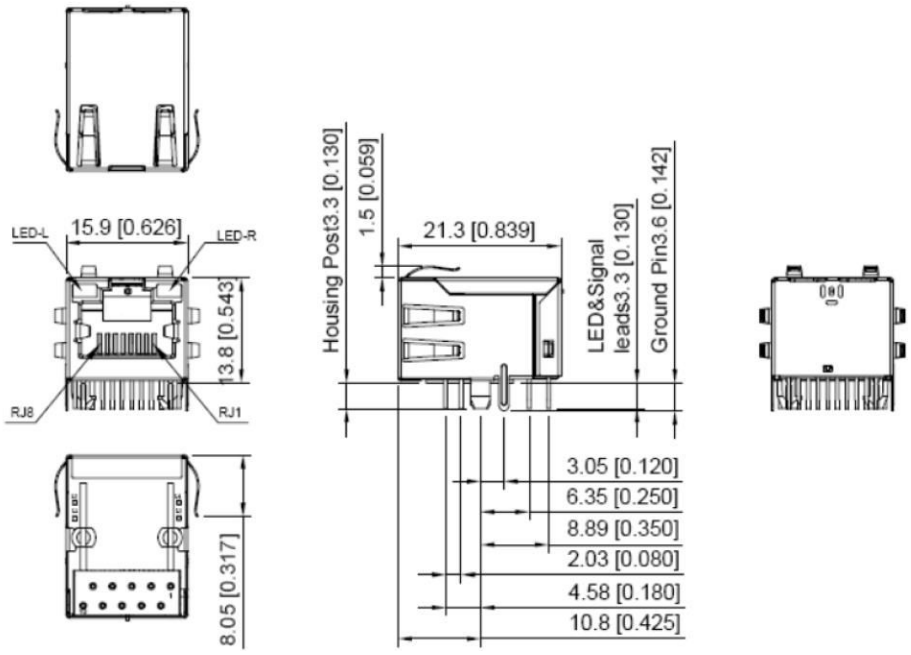


10 Pins, w/ LED
For 100 PoE/1000/2.5G/5G Base-T

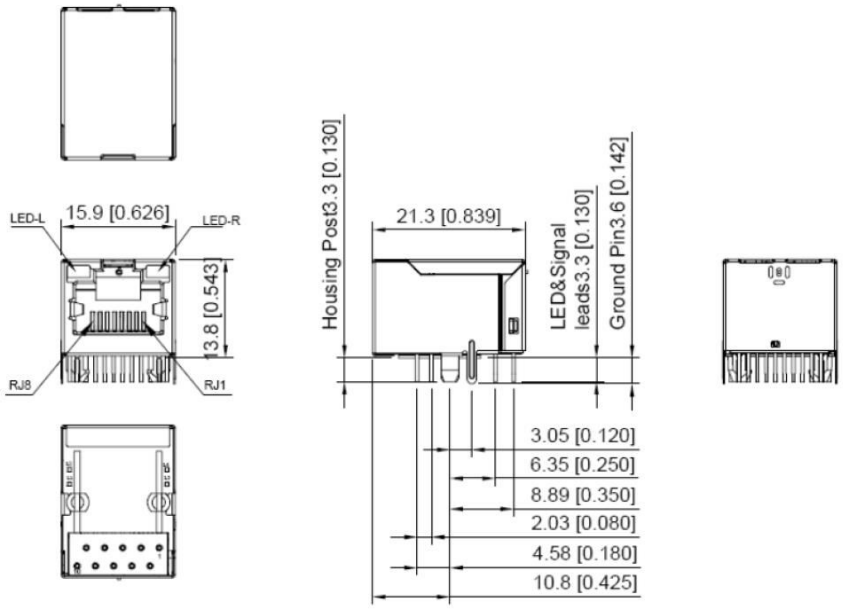


Dimensions: mm[inch]

C: Tab Up, w/ EMI Fingers



D: Tab Up, w/o EMI Fingers

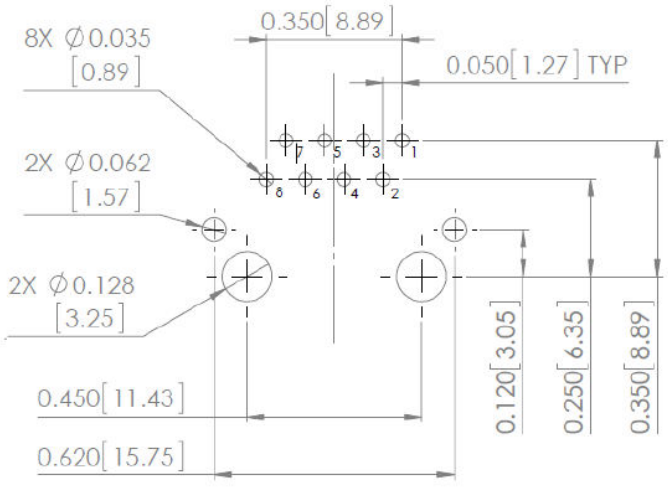


Dimensions: mm[inch] (Unless otherwise specified, all tolerances are ±0.25[0.010])

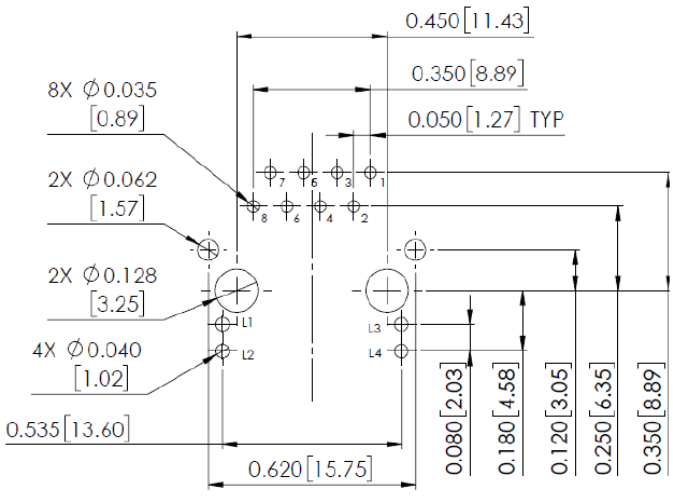
Recommended Land Patterns

Pin Layout = 7 (Vertical LEDs/ No LEDs)

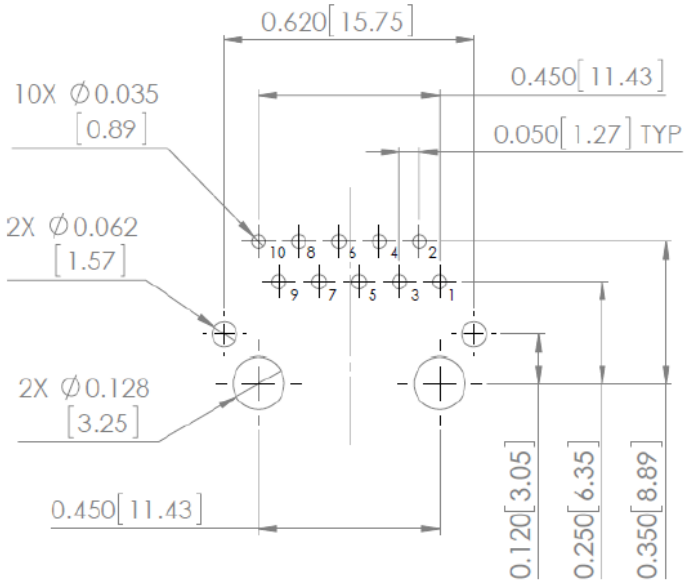
8 Pins, no LED
For 100 Base-T



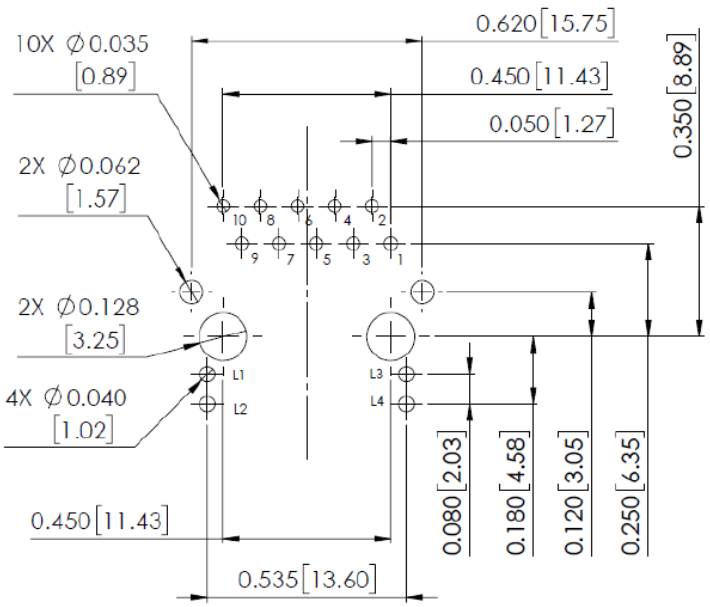
8 Pins, w/ LED
For 100 Base-T



10 Pins, no LED
For 100 PoE/1000/2.5G/5G Base-T



10 Pins, w/ LED
For 100 PoE/1000/2.5G/5G Base-T

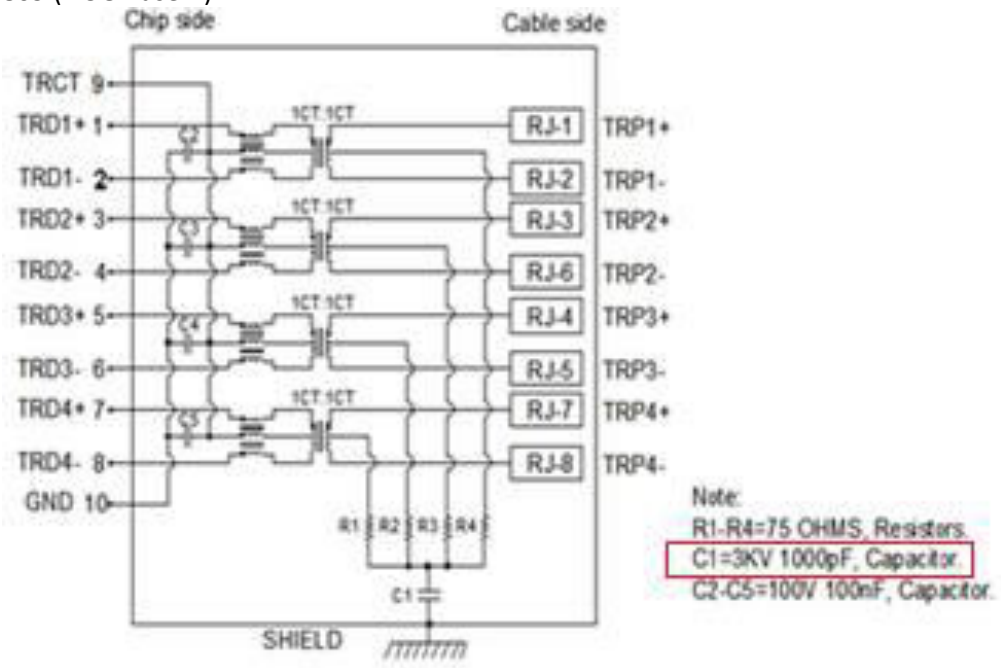


Dimensions: mm[inch]

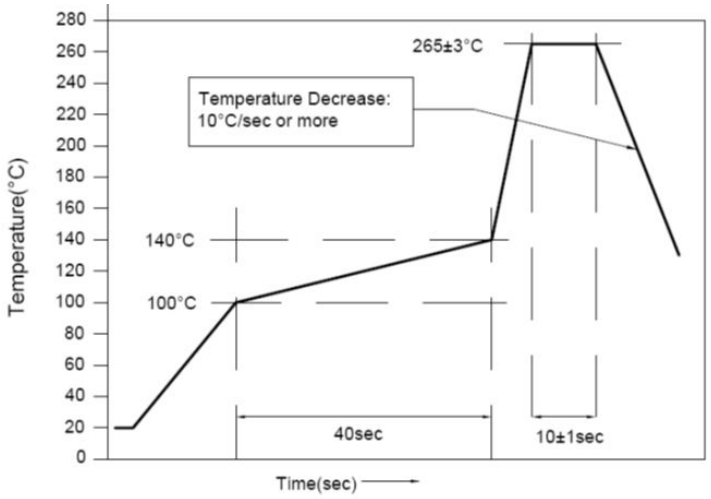
8.0 Schematics

[3KV to 2KV electrical change in schematics is shown below in the red box exists in schematics 809 and 811]

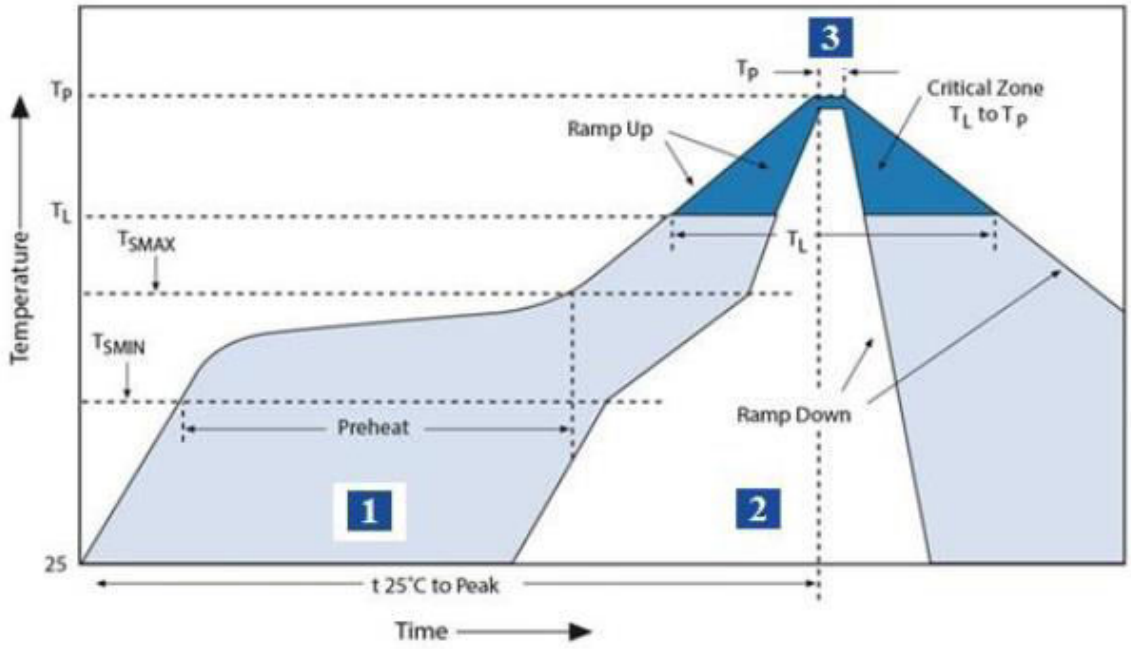
809 (2.5G Base-T)



10.1 Wave Soldering Profile



10.2 Reflow Soldering Profile



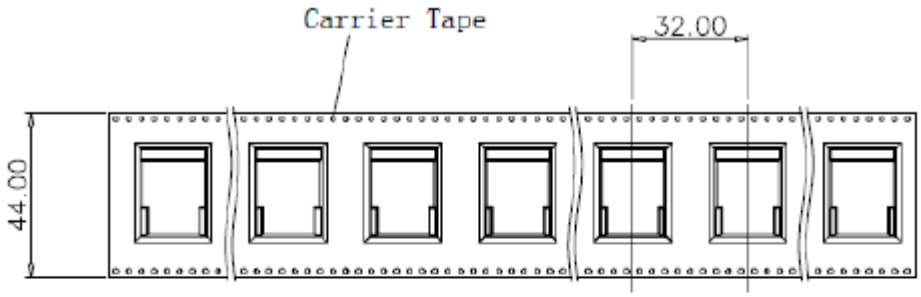
Zone	Description	Temperature	Times
1	Preheat	T_{SMIN} ~ T_{SMAX} 150°C ~ 180°C	120 ~ 180 sec.
2	Reflow	T_L 217°C	60 ~ 150 sec.
3	Peak heat	T_P 245°C	5 sec. MAX

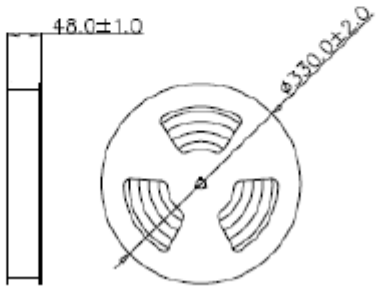
11.0 Packaging

11.1 Bulk/Tray (70pcs/tray, 700pcs/carton)

Tray Size: L315.0 x W200.0 mm, Transparent PET

11.2 Tape & Reel (70pcs/reel, 350pcs/carton)





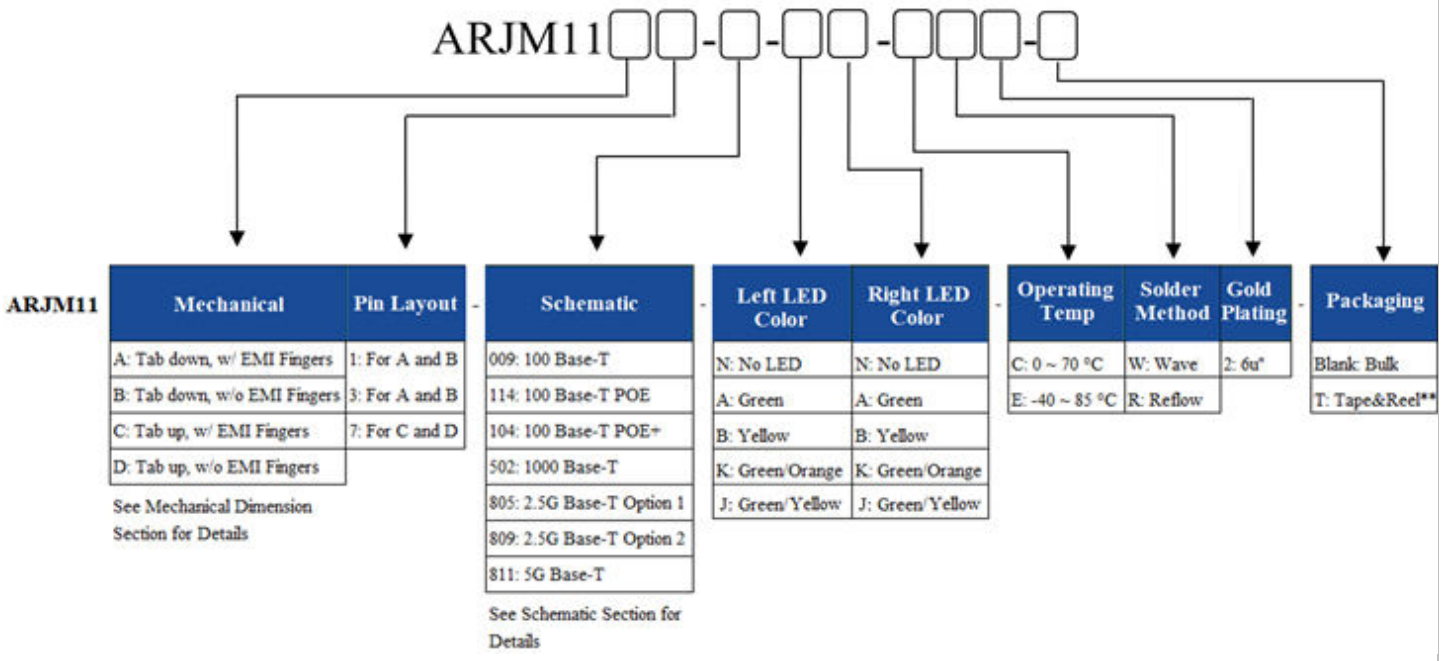
After Change:

Electrical Specifications

Parameters	Minimum	Typical	Maximum	Units	Notes
Turn Ratio (±3%)		1CT:1CT			100kHz, 0.1V
Inductance	350			µH	100kHz, 0.1V, 8mADC
	200				For 2.5G Base-T only
	160				For 5G Base-T only
Operating Temperature	-40		+85	°C	See options
Storage Temperature	-40		+85	°C	
HiPOT		2250		VDC	VDC for 60 sec.
100 Base-T					
Insertion Loss			-1.0	dB	0.3-100MHz
Return Loss	-18			dB	1-30MHz
	-13				30-60MHz
	-10				60-100MHz
Crosstalk	-30			dB	1-1000MHz
CMRR	-30			dB	1-100MHz
100 Base-T PoE, PoE+					
Insertion Loss			-1.1	dB	0.5-100MHz
Return Loss	-18			dB	0.5-30MHz
	-15				30-60MHz
	-12				60-80MHz
Crosstalk	-35			dB	0.5-40MHz
	-30				40-100MHz
CMRR	-30			dB	0.5-100MHz
DC Resistance			1.0	Ω	Secondary (cable) side
POE Balanced DC line current			350	mA	@57VDC continuous
			500		@57VDC for 200ms
POE+ Balanced DC line current			600	mA	@57VDC continuous
			720		@57VDC for 200ms
1000 Base-T					
Insertion Loss	-		-1.1	dB	0.3-100MHz
Return Loss	-16			dB	1-30MHz
	-13				30-60MHz
	-10				60-100MHz
Crosstalk	-30			dB	1-100MHz
CMRR	-30			dB	1-100MHz
2.5G Base-T					
Insertion Loss			-1.0	dB	1-50MHz
			-1.5		50-125MHz
Return Loss	-18			dB	1-40MHz
	-18+15log(f/40)†				40-250MHz
Crosstalk	-35			dB	1-40MHz
	-35+15log(f/40)†				40-125MHz
CMRR	-30			dB	1-200MHz
5G Base-T					
Insertion Loss	-0.5			dB	1-50MHz
	-1.0				50-125MHz
	-2.0				125-200MHz
	-2.5				200-250MHz
Return Loss	-20			dB	1-50MHz
	-20+15log(f/40)†				50-250MHz

Crosstalk	-25			dB	1-125MHz
	-20				125-250MHz
CMRR	-23			dB	1-250MHz

Part Number Identification



Not all combinations are supported. Please see the tables on the next pages for available part numbers.
**Part numbers containing 'R' in the suffix refers to the reflow soldering method. These devices are available in bulk/tray and T&R packaging. See available parts list below and the Packaging section for more detail.
Not all combinations are supported. Please see the tables on the next pages for available part numbers.

100 Base-T Standard Part Numbers

Part Number	Speed	Tab Direction	LED (Left:Right)	Operating Temp	Solder Method	Pkg Format
ARJM11A1-009-AB-ER2	100 Base-T	Tab Down	G : Y	-40°C ~ 85°C	Reflow	B, C
ARJM11A1-009-AB-EW2	100 Base-T	Tab Down	G : Y	-40°C ~ 85°C	Wave	A
ARJM11A1-009-AB-EW4	100 Base-T	Tab Down	G : Y	-40°C ~ 85°C	Wave	A
ARJM11A1-009-NN-ER3	100 Base-T	Tab Down	No LED	-40°C ~ 85°C	Reflow	B, C
ARJM11A1-009-NN-EW2	100 Base-T	Tab Down	No LED	-40°C ~ 85°C	Wave	A
ARJM11A3-009-AB-ER2	100 Base-T	Tab Down	G : Y	-40°C ~ 85°C	Reflow	B, C
ARJM11B1-009-AB-EW2	100 Base-T	Tab Down	G : Y	-40°C ~ 85°C	Wave	A
ARJM11B1-009-NN-ER2	100 Base-T	Tab Down	No LED	-40°C ~ 85°C	Reflow	B, C
ARJM11B1-009-NN-EW2	100 Base-T	Tab Down	No LED	-40°C ~ 85°C	Wave	A
ARJM11C7-009-AB-EW2	100 Base-T	Tab Up	G : Y	-40°C ~ 85°C	Wave	A
ARJM11C7-009-KB-EW2	100 Base-T	Tab Up	G/O : Y	-40°C ~ 85°C	Wave	A

ARJM11C7-009-NN-EW2	100 Base-T	Tab Up	No LED	-40°C ~ 85°C	Wave	A
ARJM11D7-009-AB-EW2	100 Base-T	Tab Up	G : Y	-40°C ~ 85°C	Wave	A
ARJM11D7-009-NN-EW2	100 Base-T	Tab Up	No LED	-40°C ~ 85°C	Wave	A

100 Base-T POE and POE+ Standard Part Numbers

Part Number	Speed	Tab Direction	LED (Left:Right)	Operating Temp	Solder Method	Pkg Format
ARJM11C7-104-AB-EW2	100 Base-T POE+	Tab Up	G : Y	-40°C ~ 85°C	Wave	B, C
ARJM11C7-104-BA-EW2	100 Base-T POE+	Tab Up	Y : G	-40°C ~ 85°C	Wave	B, C
ARJM11C7-114-BA-EW2	100 Base-T POE	Tab Up	Y : G	-40°C ~ 85°C	Wave	B, C
ARJM11C7-114-NN-CW2	100 Base-T POE	Tab Up	No LED	0°C ~ 70°C	Wave	B, C
ARJM11D7-104-AB-EW2	100 Base-T POE+	Tab Up	G : Y	-40°C ~ 85°C	Wave	B, C
ARJM11D7-114-AB-ER2	100 Base-T POE	Tab Up	G : Y	-40°C ~ 85°C	Reflow	B, C
ARJM11D7-114-AB-EW2	100 Base-T POE	Tab Up	G : Y	-40°C ~ 85°C	Wave	B, C
ARJM11D7-114-NN-EW4	100 Base-T POE	Tab Up	No LED	-40°C ~ 85°C	Wave	B, C

1000 Base-T Standard Part Numbers

Part Number	Speed	Tab Direction	LED (Left:Right)	Operating Temp	Solder Method	Pkg Method
ARJM11A1-502-AB-CW2	1000 Base-T	Tab Down	G : Y	0°C ~ 70°C	Wave	A
ARJM11A1-502-AB-ER2	1000 Base-T	Tab Down	G : Y	-40°C ~ 85°C	Reflow	B, C
ARJM11A1-502-AB-EW2	1000 Base-T	Tab Down	G : Y	-40°C ~ 85°C	Wave	A
ARJM11A1-502-JJ-EW2	1000 Base-T	Tab Down	G/Y : G/Y	-40°C ~ 85°C	Wave	A
ARJM11A1-502-NN-EW2	1000 Base-T	Tab Down	No LED	-40°C ~ 85°C	Wave	A
ARJM11B1-502-AB-EW2	1000 Base-T	Tab Down	G : Y	-40°C ~ 85°C	Wave	A
ARJM11B1-502-NN-EW2	1000 Base-T	Tab Down	No LED	-40°C ~ 85°C	Wave	A
ARJM11C7-502-AB-ER2	1000 Base-T	Tab Up	G : Y	-40°C ~ 85°C	Reflow	B, C
ARJM11C7-502-AB-EW2	1000 Base-T	Tab Up	G : Y	-40°C ~ 85°C	Wave	A
ARJM11C7-502-KB-EW2	1000 Base-T	Tab Up	G/O : Y	-40°C ~ 85°C	Wave	A
ARJM11C7-502-NN-EW2	1000 Base-T	Tab Up	No LED	-40°C ~ 85°C	Wave	A
ARJM11D7-502-AB-EW2	1000 Base-T	Tab Up	G : Y	-40°C ~ 85°C	Wave	A
ARJM11D7-502-NN-EW2	1000 Base-T	Tab Up	No LED	-40°C ~ 85°C	Wave	A

2.5 Base-T Standard Part Numbers

Part Number	Speed	Tab Direction	LED (Left:Right)	Operating Temp	Solder Method	Pkg Format
ARJM11A1-805-AB-EW2	2.5G Base-T	Tab Down	G : Y	-40°C ~ 85°C	Wave	A
ARJM11B1-805-AB-EW2	2.5G Base-T	Tab Down	G : Y	-40°C ~ 85°C	Wave	A
ARJM11B1-805-KB-CW2	2.5G Base-T	Tab Down	G/O : Y	0°C ~ 70°C	Wave	A
ARJM11B1-805-KB-EW2	2.5G Base-T	Tab Down	G/O : Y	-40°C ~ 85°C	Wave	A
ARJM11C7-809-AB-EW2	2.5G Base-T	Tab Up	G : Y	-40°C ~ 85°C	Wave	A
ARJM11D7-809-AB-EW2	2.5G Base-T	Tab Up	G : Y	-40°C ~ 85°C	Wave	A

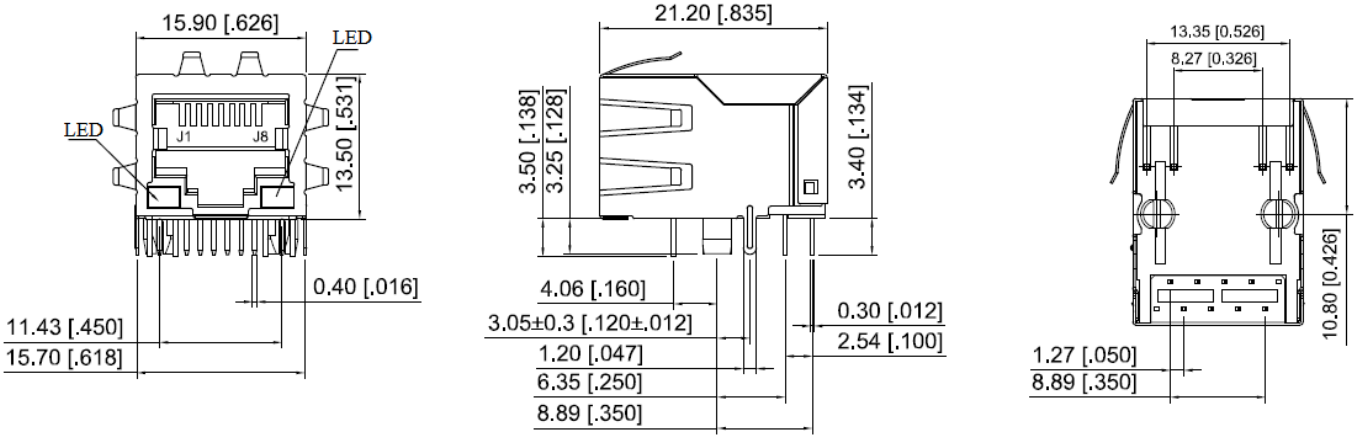
5G Base-T Standard Part Numbers

Part Number	Speed	Tab Direction	LED (Left:Right)	Operating Temp	Solder Method	Pkg Format
ARJM11A1-811-AB-EW2	5G Base-T	Tab Down	G : Y	-40°C ~ 85°C	Wave	A
ARJM11B1-811-AB-EW2	5G Base-T	Tab Down	G : Y	-40°C ~ 85°C	Wave	A
ARJM11C7-811-AB-EW2	5G Base-T	Tab Up	G : Y	-40°C ~ 85°C	Wave	A
ARJM11D7-811-AB-EW2	5G Base-T	Tab Up	G : Y	-40°C ~ 85°C	Wave	A

Mechanical Spcifications

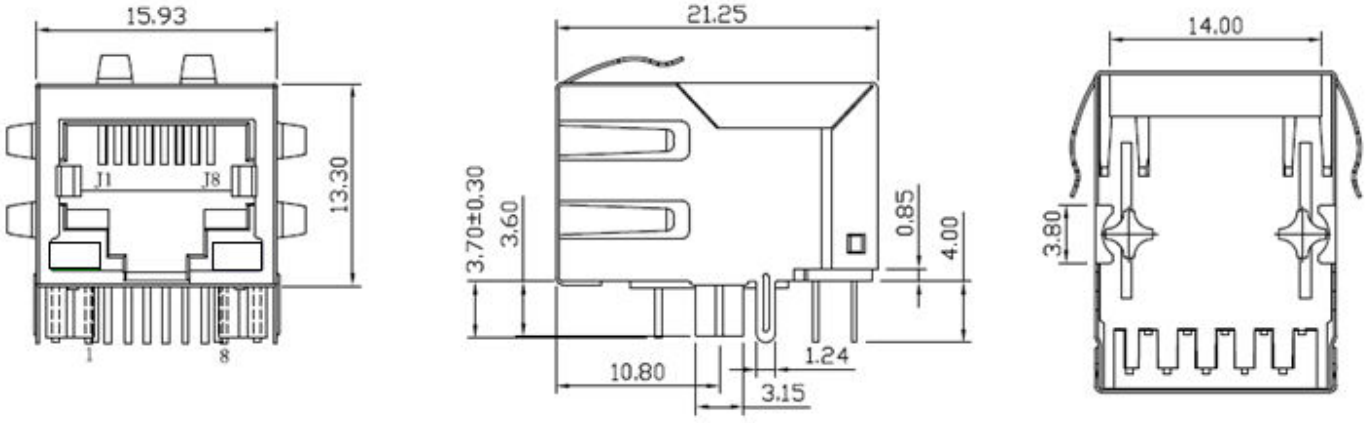
[mechanical differences are minimal and will not affect the assembly process.]
[package types broken out into wave and reflow configurations]
[packages may have cosmetic differences]

A: Tab Down, w/ EMI Fingers (Wave)



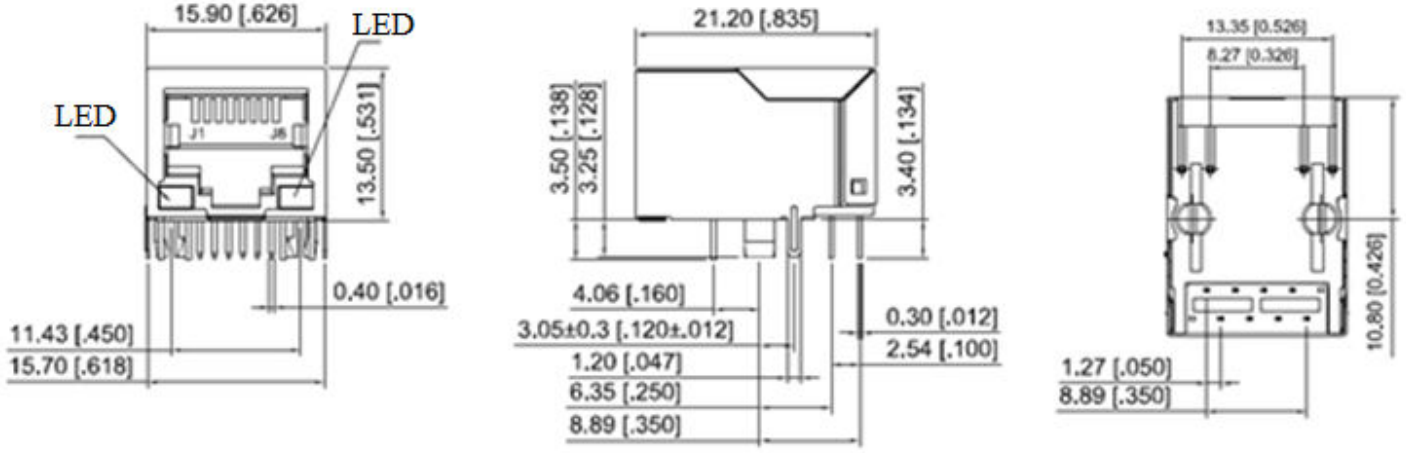
Dimensions: mm[inch] (Unless otherwise specified, all tolerances are ±0.25[0.010])

A: Tab Down, w/ EMI Fingers (Reflow)



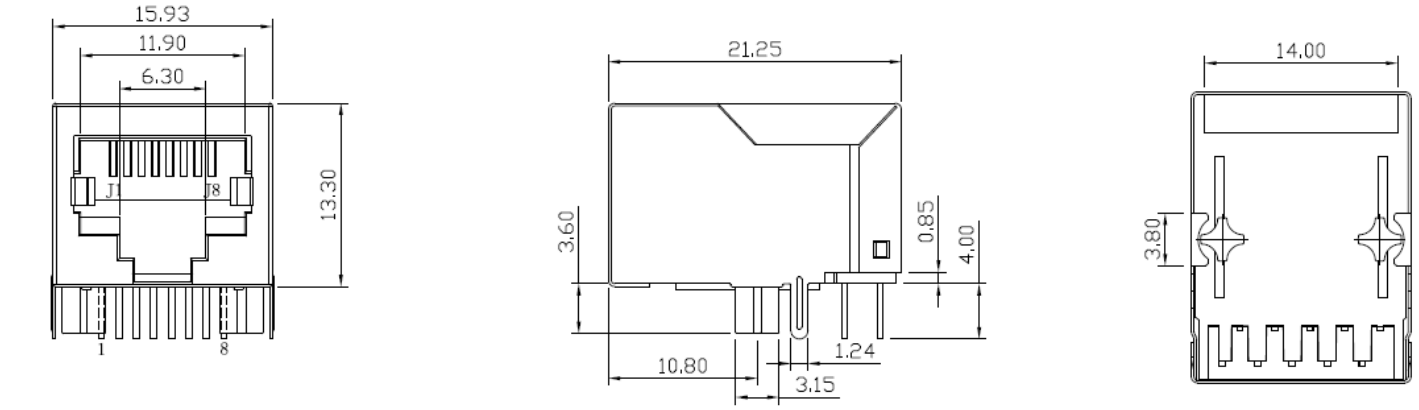
Dimensions are in mm. Tolerances are ±0.25mm unless noted otherwise.

B: Tab Down, w/o EMI Fingers (Wave)



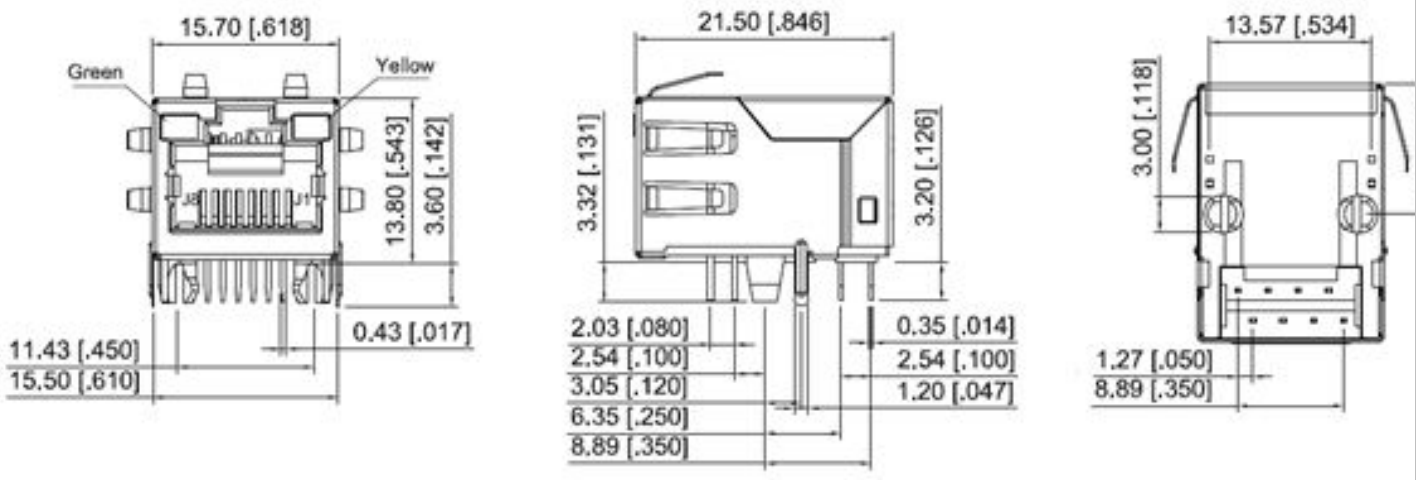
Dimensions: mm[inch] (Unless otherwise specified, all tolerances are ±0.25[0.010])

B: Tab Down, w/o EMI Fingers (Reflow)



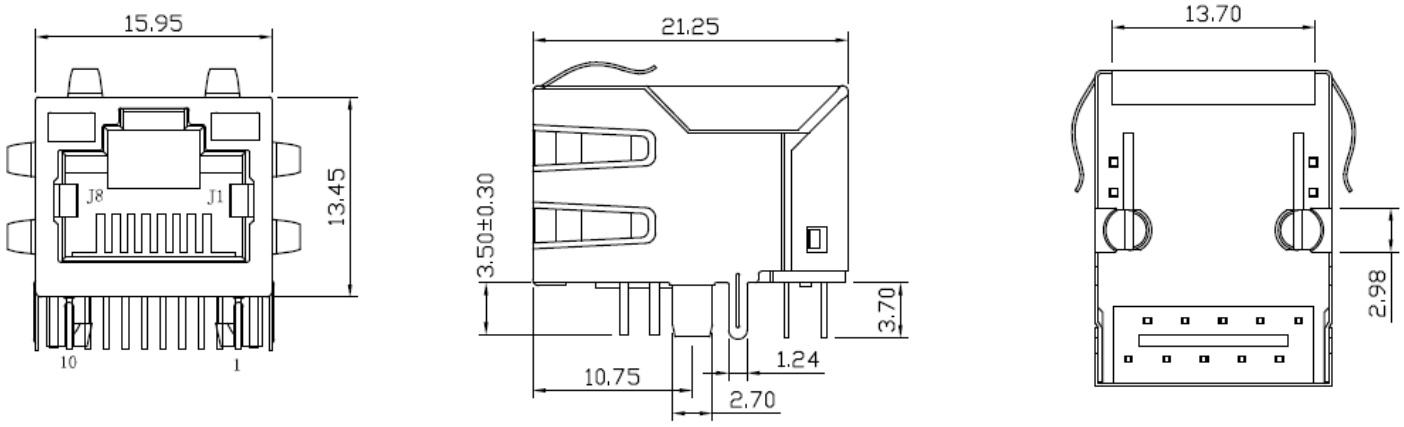
Dimensions are in mm. Tolerances are ±0.25mm unless noted otherwise.

C: Tab Up, w/ EMI Fingers (Wave)



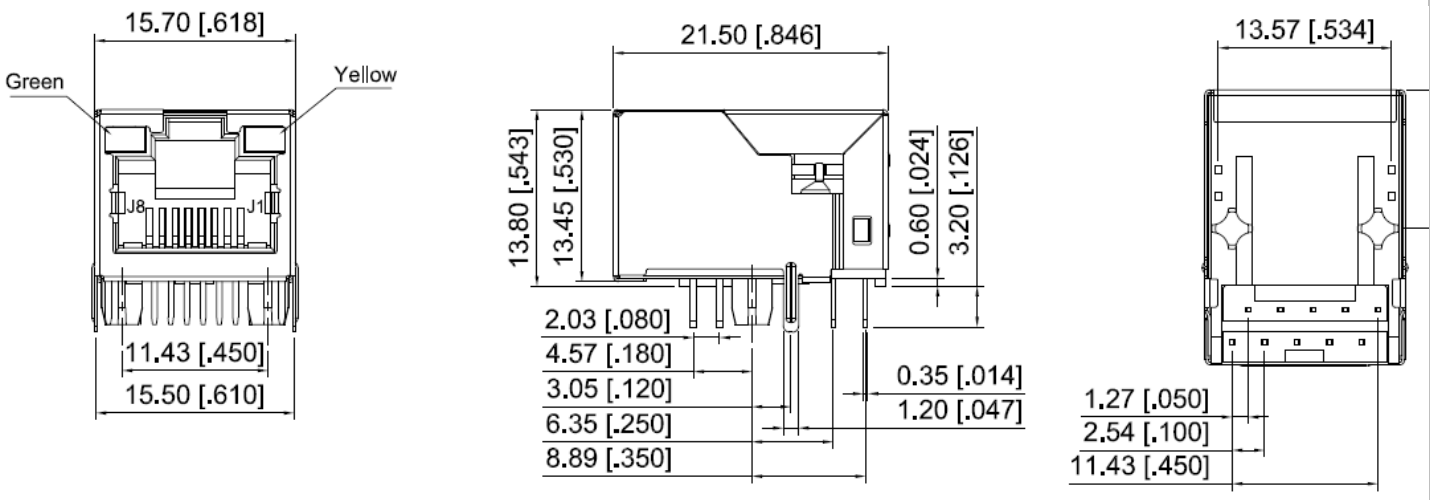
Dimensions: mm[inch] (Unless otherwise specified, all tolerances are ±0.25[0.010])

C: Tab Up, w/ EMI Fingers (Reflow)



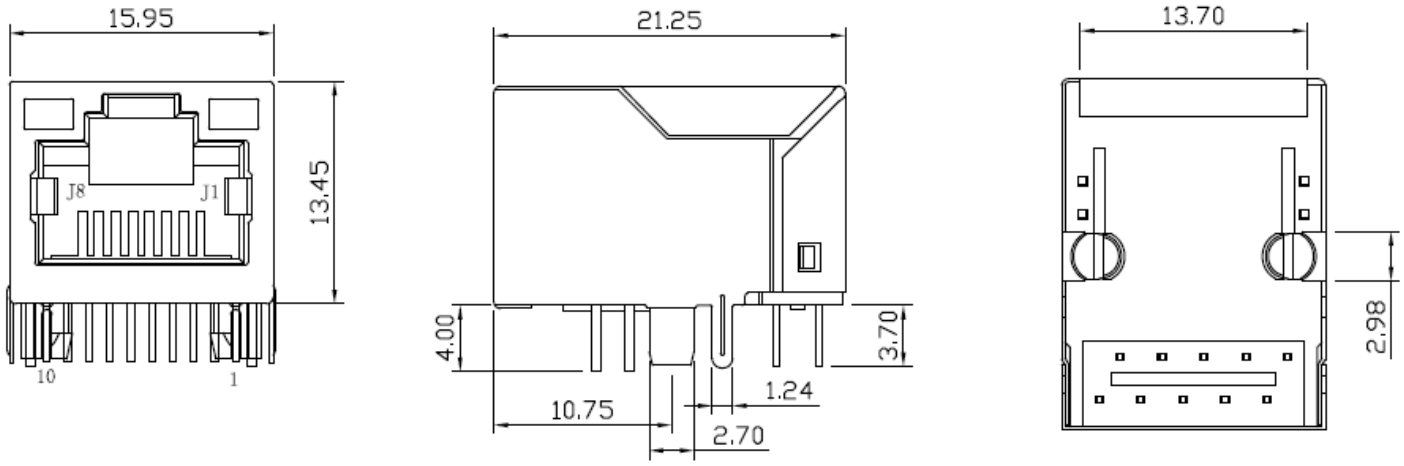
Dimensions are in mm. Tolerances are ±0.25mm unless noted otherwise.

D: Tab Up, w/o EMI Fingers (Wave)



Dimensions: mm[inch] (Unless otherwise specified, all tolerances are ±0.25[0.010])

D: Tab Up, w/o EMI Fingers (Reflow)



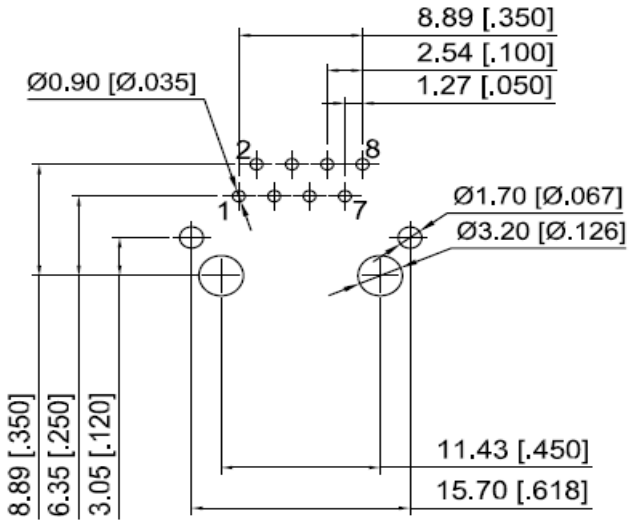
Dimensions are in mm. Tolerances are ±0.25mm unless noted otherwise.

Recommended Layout

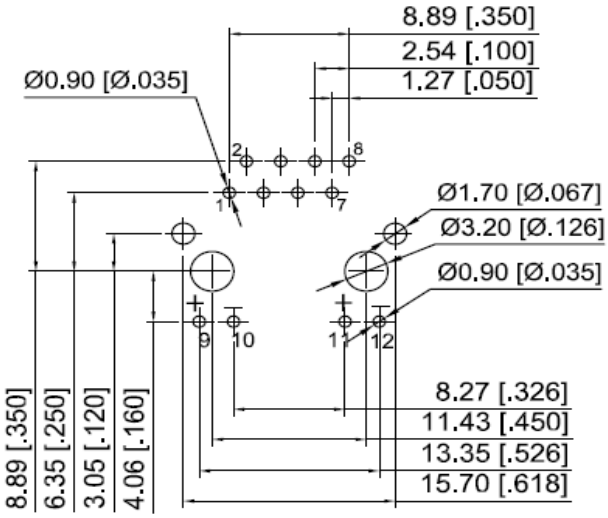
10/100 Base-T

Pin Layout = 1 (Horizontal LEDs/ No LEDs)

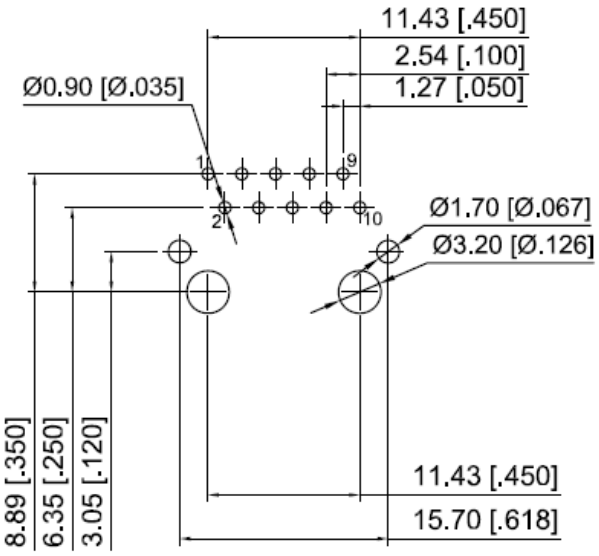
8 Pins, no LED
For 100 Base-T



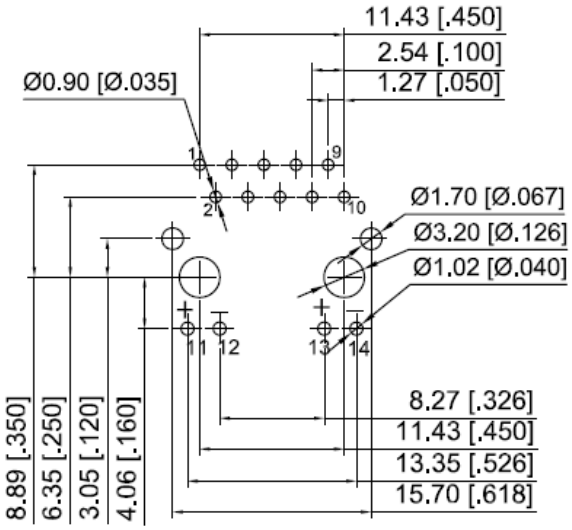
8 Pins, w/ LED
For 100 Base-T



10 Pins, no LED
For 100 PoE/1000/2.5G/5G Base-T



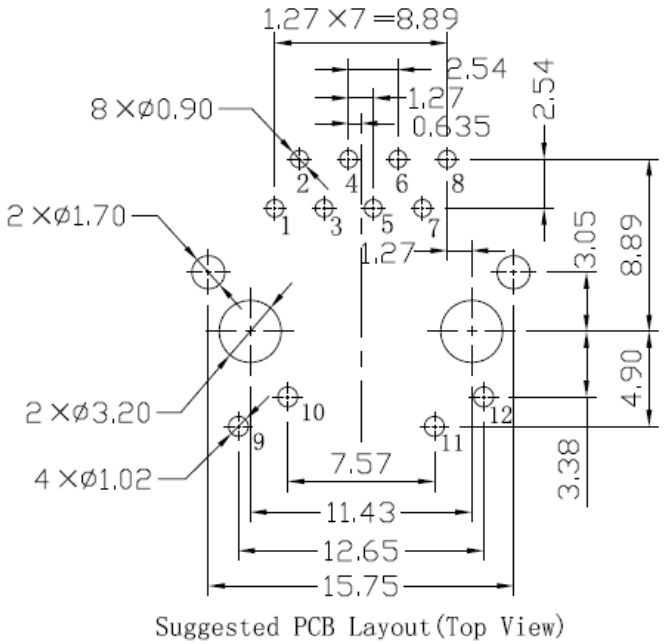
10 Pins, w/ LED
For 100 PoE/1000/2.5G/5G Base-T



Dimensions: mm[inch] Layout tolerances are ±0.05[0.002]mm unless noted otherwise.

Pin Layout = 3 (diagonal LEDs)

8 Pins, w/ LEDs
For 100 Base-T

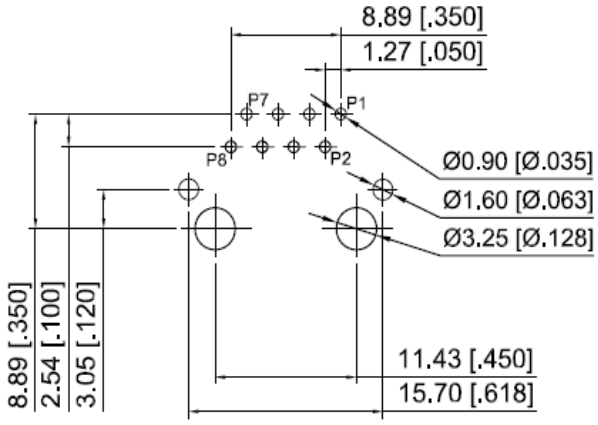


Suggested PCB Layout(Top View)

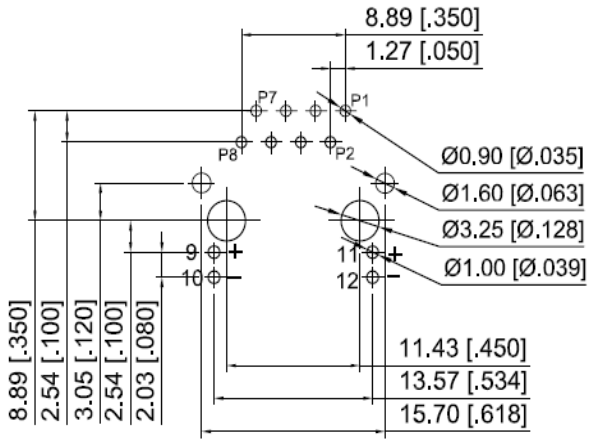
Dimensions: mm. Layout tolerances are ±0.05mm unless noted otherwise.

Pin Layout = 7 (Vertical LEDs/ No LEDs)

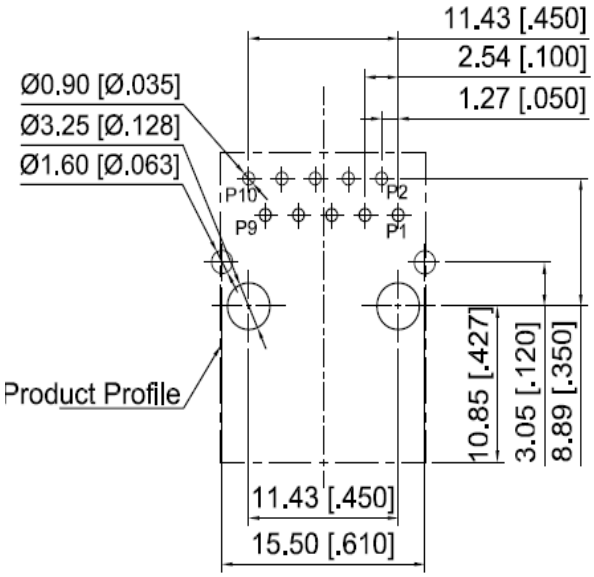
8 Pins, no LED
For 100 Base-T



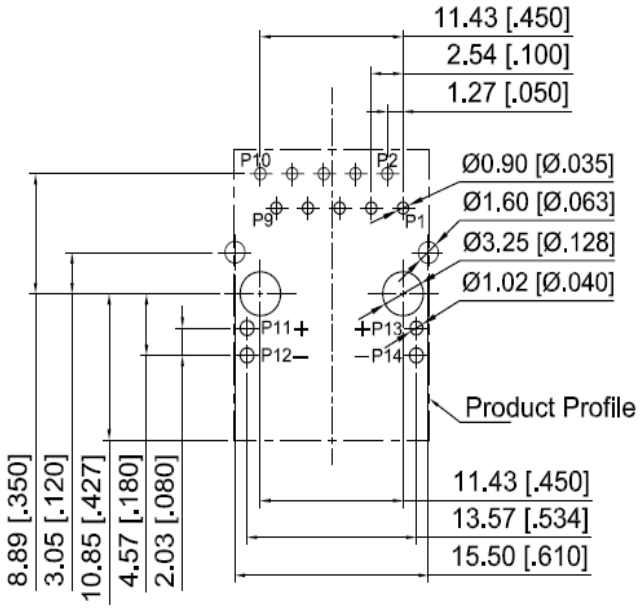
8 Pins, w/ LED
For 100 Base-T



10 Pins, no LED
For 100/1000/2.5G/5G Base-T

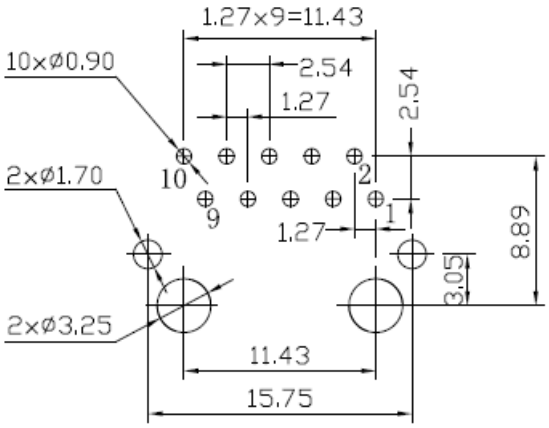


10 Pins, w/ LED
For 100/1000/2.5G/5G Base-T

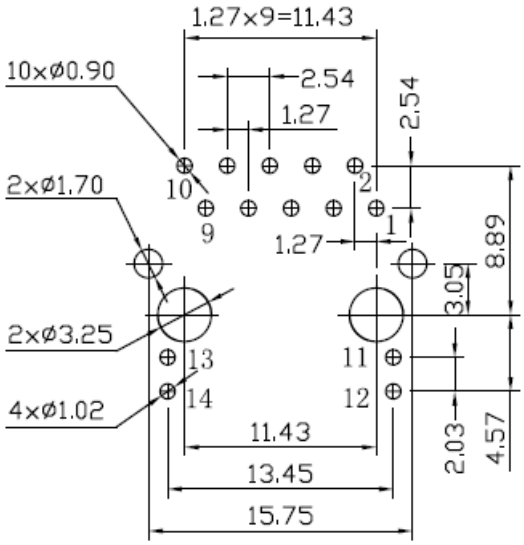


Dimensions: mm. Layout tolerances are ±0.05mm unless noted otherwise.

10 Pins, no LED
For 100 Base-T w/ POE, POE+



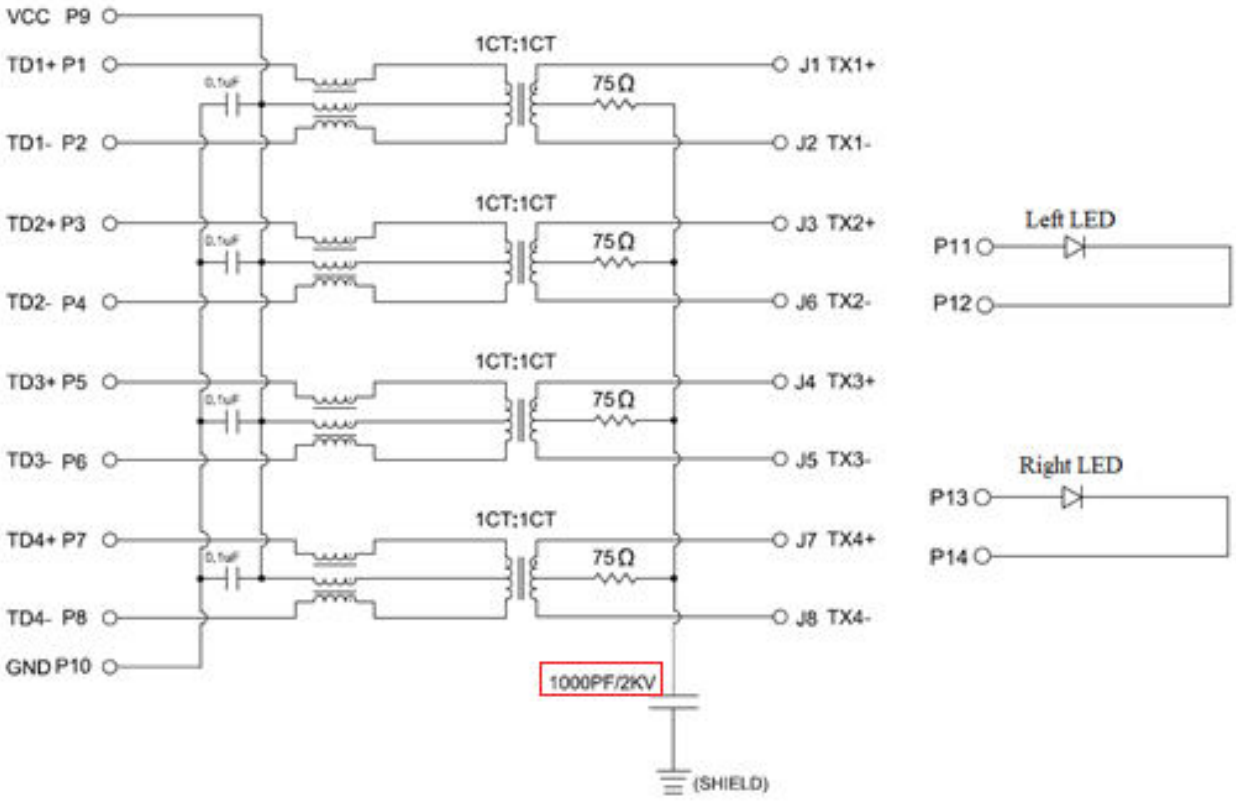
10 Pins, w/ LED
For 100 Base-T w/ POE, POE+



Dimensions are in mm. Layout tolerances are ±0.05mm unless noted otherwise.

Schematic

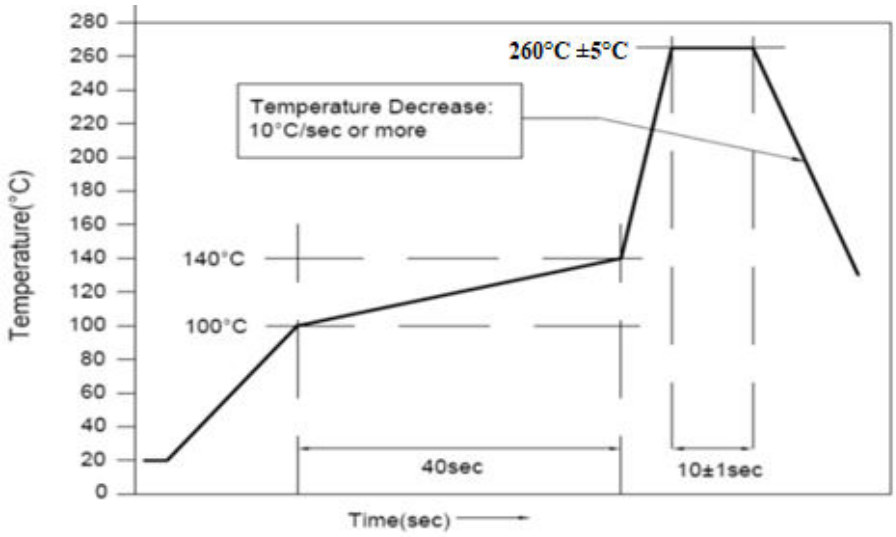
[change for the 809 and 811 schematics consist of 2KV coupling capacitor for the Bob Smith termination]



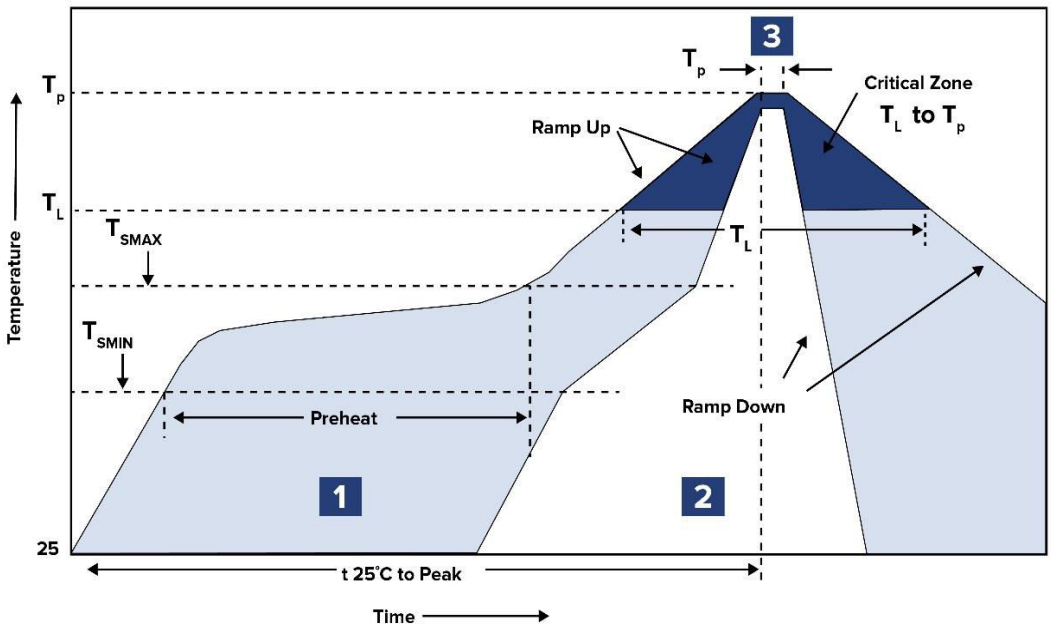
Soldering Profile

[soldering profiles for both Wave and reflow now have Tmax of 260°C±5°C]

Wave Method



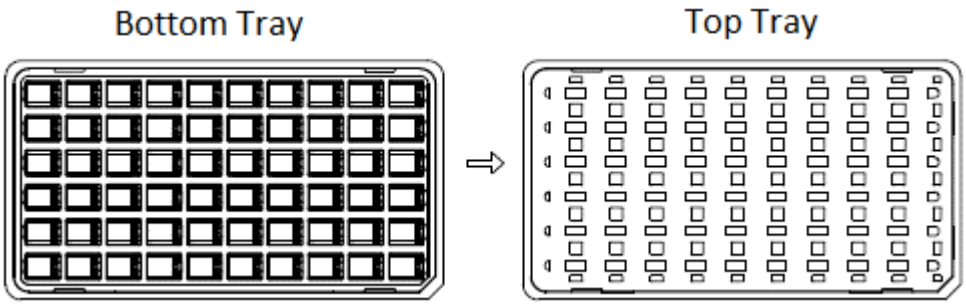
Reflow Method

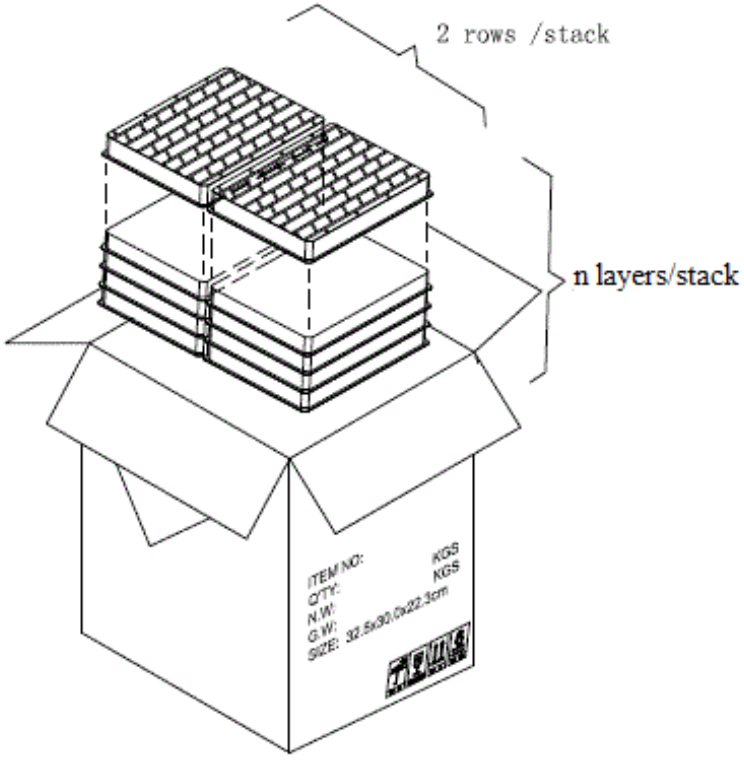


Zone	Description	Temperature	Times
1	Preheat	T_{SMIN} ~ T_{SMAX} = 150°C ~ 180°C	120 ~ 180 sec.
2	Reflow	T_L = 217°C	60 ~ 150 sec.
3	Peak heat	T_P = 260°C ±5°C	10 sec. MAX

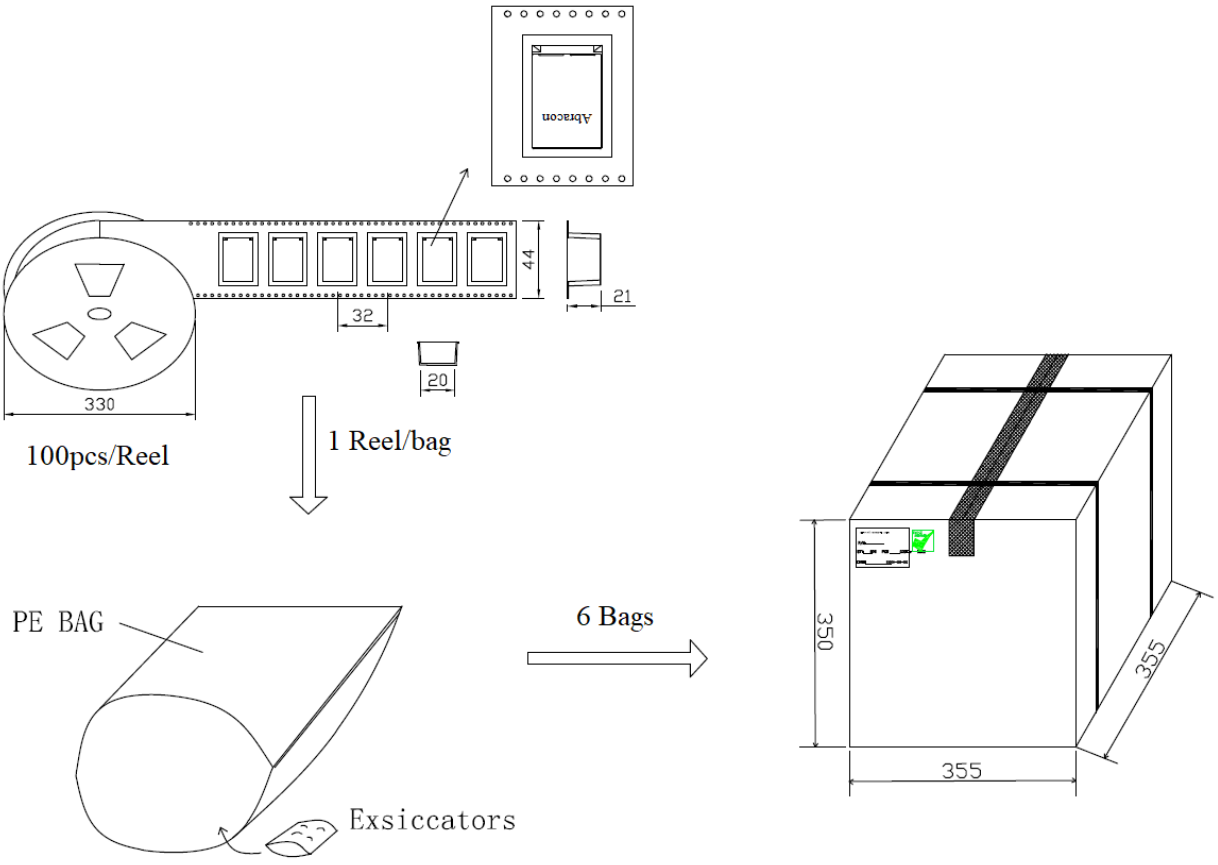
Packaging

Bulk/Tray (50pcs/tray)
Format A – 40 trays/carton, Weight: g/pc, Carton Gross Weight: Kg
Format B – 24 trays/carton, Weight: g/pc, Carton Gross Weight: 8.5Kg





Tape & Reel (100pcs/reel)
Format C – 6 Reels/carton, Weight: g/pc, Carton Gross Weight: 6.5Kg



Dimensions: mm

Cause/Reason for Change:
Moving to new production line. Updating to clearer graphics and drawings.

Change Plan

Effective Date:	**Additional Remarks:**
3/19/2021	

Change Declaration:
Changes described in this document do not adversely affect the products form, fit or function.

Issued Date:	**Issued By:**	**Issued Department:**
3/19/2021	*Gerald Capwell*	Engineering
Approval:	**Approval:**	**Approval:**
Syed Raza Engineering VP	*Reuben Quintanilla* Quality Director	*Ying Huang* Purchasing Director

For Abracon EOL only

Last Time Buy (if applicable):	**Alternate Part Number / Part Series:**
	Refer to EOL M1226 for a list of discontinued part numbers and possible alternatives for some.

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:

ECN:	M1226
Product:	ARJM11 Series

ECN M1226 ARJM11 Notification

Affected Part Numbers	Part Numbers Added to Series
ARJM11A1-009-AB-ER2-T	
ARJM11A1-009-AB-EW2	
ARJM11A1-009-AB-EW4	
ARJM11A1-009-NN-ER3	
ARJM11A1-009-NN-EW2	
ARJM11A1-502-AB-CW2	
ARJM11A1-502-AB-ER2-T	
ARJM11A1-502-AB-EW2	
ARJM11A1-502-JJ-EW2	
ARJM11A1-502-NN-EW2	
ARJM11A1-805-AB-EW2	
ARJM11A1-811-AB-EW2	
ARJM11A3-009-AB-ER2	
ARJM11B1-009-AB-EW2	
ARJM11B1-009-NN-ER2-T	
ARJM11B1-009-NN-EW2	
ARJM11B1-502-AB-EW2	
ARJM11B1-502-NN-EW2	
ARJM11B1-805-AB-EW2	
ARJM11B1-805-KB-CW2	
ARJM11B1-805-KB-EW2	
ARJM11B1-811-AB-EW2	
ARJM11C7-009-AB-EW2	
ARJM11C7-009-KB-EW2	
ARJM11C7-009-NN-EW2	
ARJM11C7-104-AB-EW2	
ARJM11C7-104-BA-EW2	
ARJM11C7-114-BA-EW2	
ARJM11C7-114-NN-CW2	
ARJM11C7-502-AB-ER2-T	
ARJM11C7-502-AB-EW2	
ARJM11C7-502-KB-EW2	
ARJM11C7-502-NN-EW2	
ARJM11C7-809-AB-EW2	
ARJM11C7-811-AB-EW2	
ARJM11D7-009-AB-EW2	
ARJM11D7-009-NN-EW2	
ARJM11D7-104-AB-EW2	
ARJM11D7-114-AB-ER2-T	
ARJM11D7-114-AB-EW2	
ARJM11D7-114-NN-EW4	
ARJM11D7-502-AB-EW2	
ARJM11D7-502-NN-EW2	
ARJM11D7-809-AB-EW2	
ARJM11D7-811-AB-EW2	

EOL M1226 ARJM11 Notification

Part Numbers Discontinued	
ARJM11A1-009-AA-EW2	ARJM11C7-114-AB-EW2
ARJM11A1-009-AB-CW2	ARJM11C7-114-KB-CW2
ARJM11A1-009-KB-CW2	ARJM11C7-114-KB-ER2-T
ARJM11A1-009-KB-ER2-T	ARJM11C7-114-KB-EW2
ARJM11A1-009-KB-EW2	ARJM11C7-114-NN-ER2-T
ARJM11A1-009-NN-CW2	ARJM11C7-114-NN-EW2
ARJM11A1-009-NN-ER2-T	ARJM11C7-502-AB-CW2
ARJM11A1-502-KB-CW2	ARJM11C7-502-KB-CW2
ARJM11A1-502-KB-ER2-T	ARJM11C7-502-KB-ER2-T
ARJM11A1-502-KB-EW2	ARJM11C7-502-NN-CW2
ARJM11A1-502-NN-CW2	ARJM11C7-502-NN-ER2-T
ARJM11A1-502-NN-ER2-T	ARJM11C7-805-AB-CW2
ARJM11A1-805-AB-CW2	ARJM11C7-805-AB-ER2-T
ARJM11A1-805-AB-ER2-T	ARJM11C7-805-AB-EW2
ARJM11A1-805-KB-CW2	ARJM11C7-805-KB-CW2
ARJM11A1-805-KB-ER2-T	ARJM11C7-805-KB-ER2-T
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