

PoE Types and Classes	802.3at PoE+ (Type 2)					Non-Ratified / Vendor Specific*				
	802.3af PoE (Type 1)				4	*POE++/UPOE		*4PPOE		
	0	1	2	3		5	6	7	8	
Class	0	1	2	3	4	5	6	7	8	
PSE Power (W)	15.4	4	7	15.4	30	45	60	75	90	
PD Power (W)	13	3.84	6.49	13	25.5	40	51	62	71	
Note: Mode A = Pins 1,2 and 3,6 : Mode B = Pins 4,5+ and 7,8-	802.3bt 4 Pair PoE (Type 3)									
	802.3bt 4 Pair PoE (Type 4)									

### What is POE++ or UPOE or 4PPOE?

The 802.3bt specification was ratified in 2018. Prior to that official specification release and before 802.3bt IC's were available, manufacturers needed a way to supply over 30W allowed by the 802.3at specification. From this need was born the following unratified or vendor specific solutions. These will all be replaced over time with 802.3bt-2018:

- POE++** Using 4 pairs (all 8 Ethernet wires) a manufacturer can create a 60W system utilizing two 802.3at 30W channels. Some manufacturers use a single signature detect while others use a dual signature detect. In effect you have one 30W 802.3at channel on pins 1,2,3,6 and another on pins 4,5,7,8. Tycon utilizes a dual 802.3at detect in its POE++ products.
- UPOE** UPOE was developed by Cisco and uses 4 pair power. There are 2 802.3at signatures, similar to the POE++.
- 4PPOE** This was the official pre-release name for 802.3bt. It's 4pair power capable of 90W.