Merit Lilin Technical Support Document

Subject: PoE & PoE+ switch selection guide

Summary:

There are two types of PoE standards 802.3af (PoE) and 802.3at (PoE+) that can provide power for LILIN's PoE IP cameras.   The power specifications are described as below table:

Standard PoE parameters and comparison

| Property	802.3af (802.3at Type 1)	802.3at Type 2
Power available at PD[note 1]	12.95 W	25.50 W
Maximum power delivered by PSE	15.40 W	34.20 W
Voltage range (at PSE)	44.0 - 57.0 V[9]	50.0 - 57.0 V[9]
Voltage range (at PD)	37.0 - 57.0 V[10]	42.5 - 57.0 V[10]
Maximum current	350 mA[11]	600 mA[11]
Power management	Three power class levels negotiated at initial connection	Four power class levels negotiated at initial connection or 0.1 W steps negotiated continuously
De rating of maximum cable ambient operating temperature	None	5°C with two pairs used, 10°C with four pairs used
Supported cabling	Category 3 and Category 5	Category 5[note 2]
Supported modes	Mode A (endspan), Mode B (midspan)	Mode A, Mode B, Mode A and Mode B operating simultaneously

Source http://en.wikipedia.org/wiki/Power_over_Ethernet

To use PoE and PoE+ IP cameras with correct PoE switch, please read IP camera specification first and make sure the power requirement.

LILIN 802.3af PoE switch support list:

	Power PoE Switch (PMH-PS-588I/PMH-PS-7616I/PMH-PS-7242I)				
Device	SL1212D	IPD552	IPD112ESX	IPG012ES	IPR31ESX

Full Power 802.3af PoE (13W) Technology
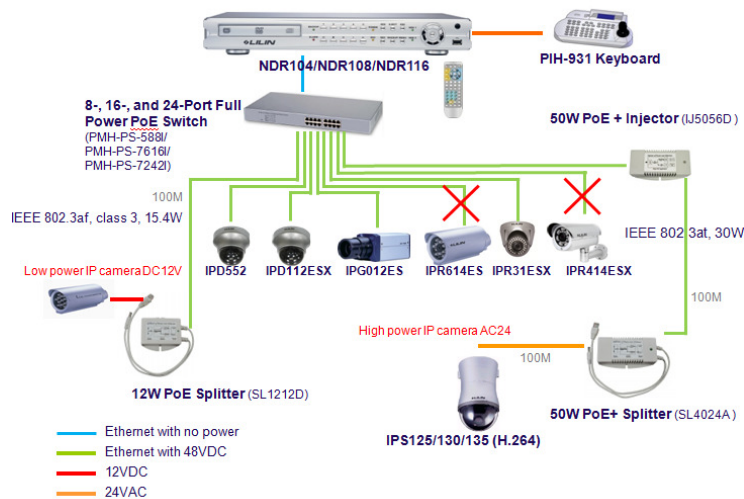
LILIN 802.3af PoE switch support list:

	Power PoE+ Switch						
Device	SL1212D	IPD552	IPD112ESX	IPG012ES	IPR31ESX	IPR414ESX	IPR614ES

Full Power 802.3af PoE+ (30W) Technology
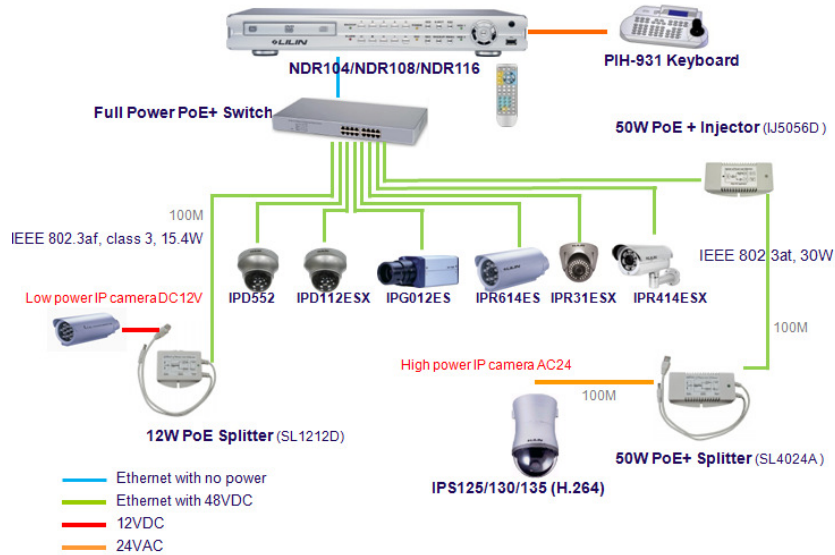
IJ5056 PoE+ injector can only connect SL4024A.

Connect PoE injector (IJ5056D) only to an IP Fast Dome device