



Realtek Long Distance Fast Ethernet PHY

Q2. 2020

RTL8201G(I)-VB-CG/RTL8201GR(I)-VB-CG

- Support mode and cable length
 - IEEE 802.3/802.3u support (Traditional Fast Ethernet)
 - IEEE 100BASE-T1
 - ✓ 100Mbps@300meters for Cat 5e (1 pair)
 - ✓ 100Mbps@500meters for Coaxial (75-5)
@300meters for Coaxial (75-3)
 - Realtek Long Distance Tech:
 - ✓ LD10: 10Mbps@1000meters for Coaxial (75-5)
 - ✓ LD10: 10Mbps@800meters for Cat 5e (1 pair)
 - ✓ LD100: 100Mbps@500meters for Cat 5e (2 pairs)

Mode	Speed	Cable Pairs	CAT 5e	Coaxial 75-5
FEPHY	100/10Mbps	2	130m/250m	N/A
100BAST-T1	100Mbps	1	300m	500m
LD100	100Mbps	2	500m	N/A
LD10	10Mbps	1	800m	1000m

RTL8201G(I)-VB-CG/RTL8201GR(I)-VB-CG

● Features

- Surge Line to Line up to 1.5KV
- Auto-Negotiation with Realtek LD switch/PHY
- Clock input : 25MHz XTAL or OSC, 50MHz OSC
- Provide two status LEDs
- EEE ready for IEEE802.3/802.3u (traditional FE PHY)
- WOL
- Interrupt
- Single power source 3.3V, and built-in LDO for 1.0V
- U40nm Process

● Package

- QFN-32 pin to pin with RTL8201F-VB (MII/RMII interface)
- QFN-24 pin to pin with RTL8201FR-VB (RMII interface)

Application mode

- IP Camera long distance solution
 - SOC + RTL8201G(R)(I)-VB
- Switch long distance solution
 - Switch + RTL8201F(R)-VB + RTL8201G(R)(I)-VB
 - LD Switch RTL8326H (24 port)/RTL8310H (8 port)

Coaxial cable or UTP cable



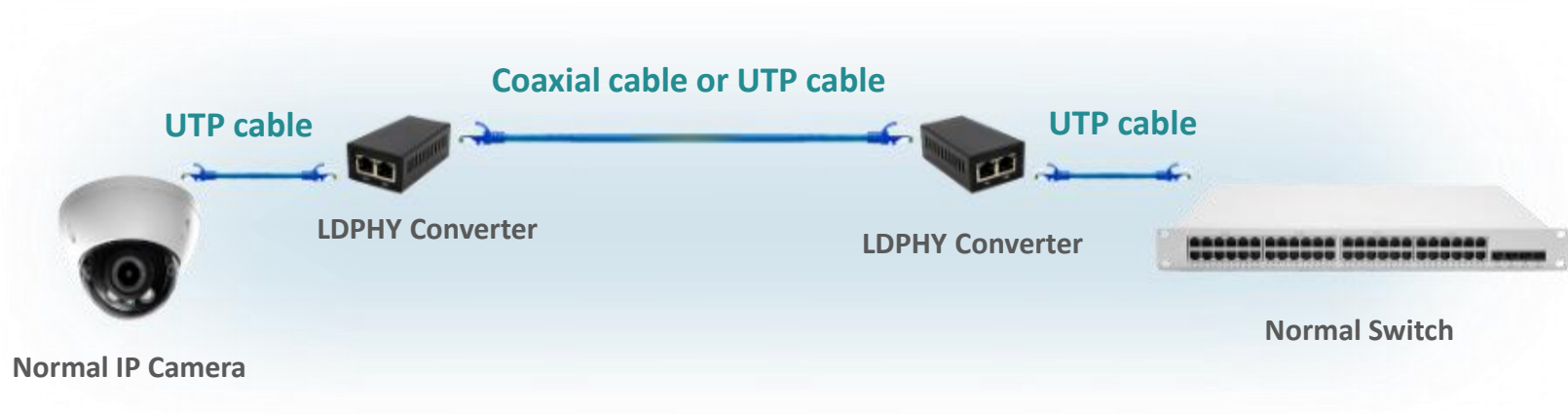
IP Camera with RTL8201G(R)-VB



Switch with RTL8310H/8326H

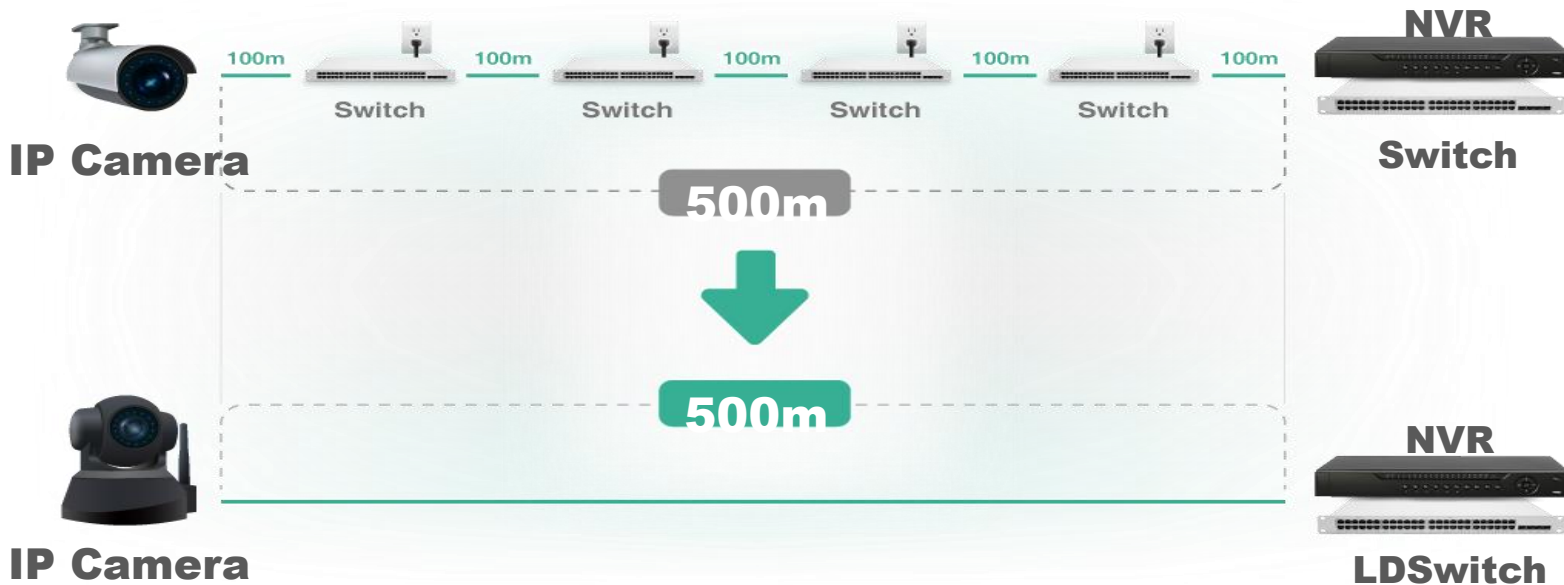
Application mode

- LDPHY Converter
 - RTL8201FR-VB + RTL8201G(R)(I)-VB

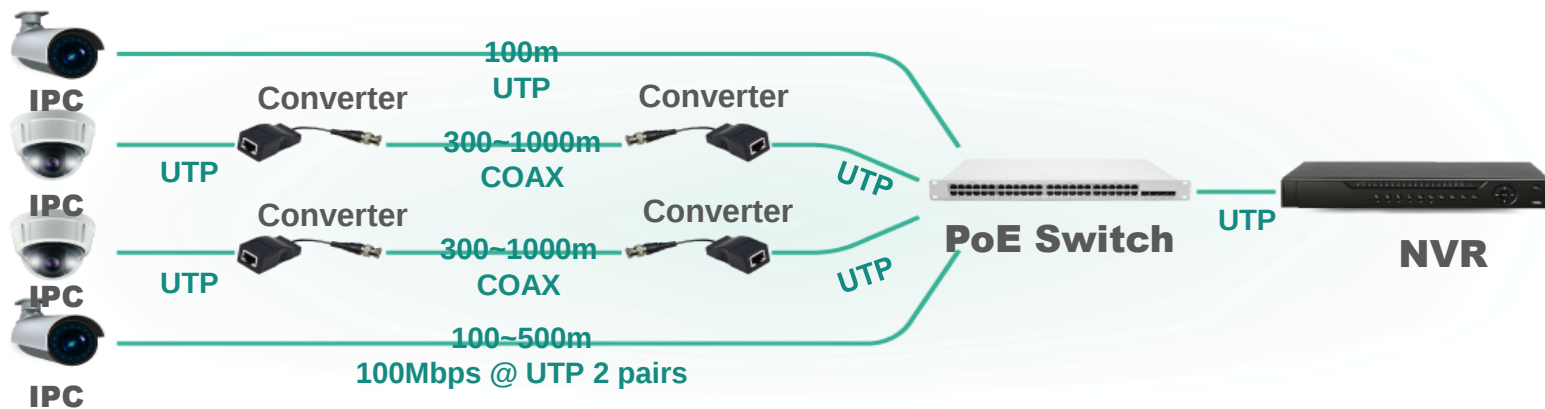
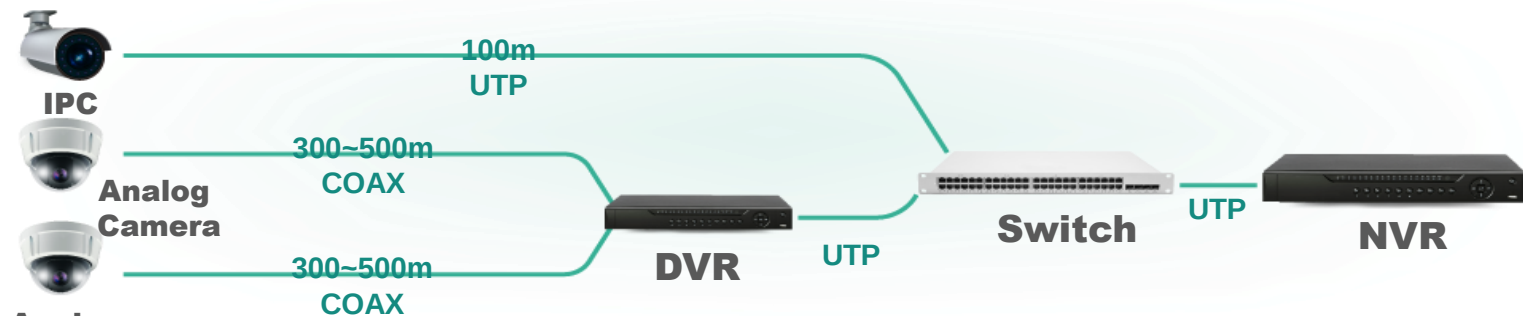


Application mode

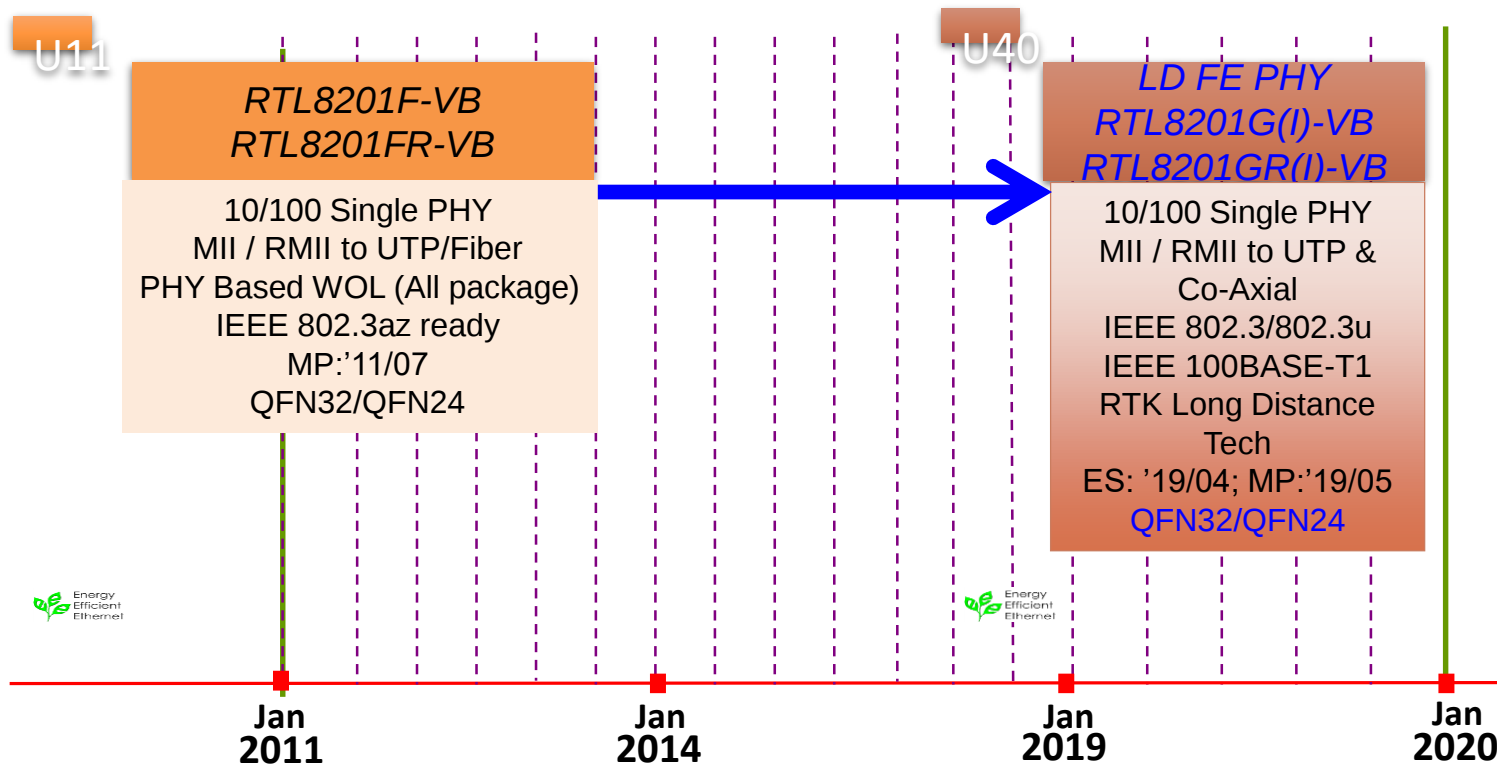
- Advantage
 - Reduce the cost
 - Easy to set up the device and cable
 - Not only UTP but also coaxial cable



Application mode



Roadmap





REALTEK

Thank You

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