



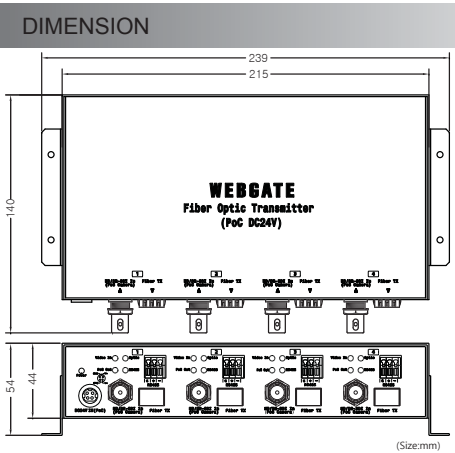
Instruction Manual

FIBER OPTIC TRANSMITTER
OPT-TX4-RS485P Support PoC/CoC

※ Please read instruction manual carefully before installing or using this product.

FEATURES

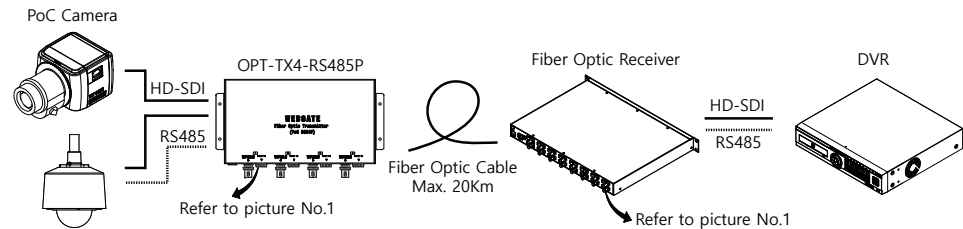
- 1. This product converts HD-SDI signal to optical signal and transmits it.
Optical signal transmission.
- 2. PoC(Power over Coax), CoC(Control over Coax) and video transmission can be done with a coaxial cable.
- 3. Video/Data (RS485) transmission up to 20Km through single mode fiber-optic cable.
- 4. Supports 1080p25/30 video.
- 5. LED indicators for Power, PoC, Video, Data and Fiber-optic Status.



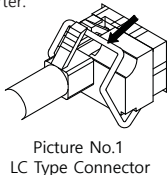
WEBGATE
HD-CCTV solution provider

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Premium to your HD-CCTV solution

DEVICE CONNECTION METHOD



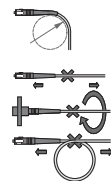
- Non PoC Camera
1. Connect camera's video output to Transmitter's "HD-SDI In" using coaxial cable.
 - PoC Camera : No need for Power and RS485 connection
 - Non PoC Camera : Connect power supply and RS485 to control PTZ and OSD
 - Please refer to "Coaxial Cable Cautions" for HD-SDI transmission distance
 2. Connect Transmitter and Receiver using Single mode LC Type fiber-optic cable.
 - When connecting optical cable to the converter, insert fully until you hear a click sound.
 - As shown in Figure 1, pull the lever to lock the optical cable not to fall off from the converter.
 3. Connect Receiver's "HD-SDI Out" to DVR's "HD-SDI In" using coaxial cable.
 - To control camera OSD or PTZ, connect RS485 line between Receiver and DVR.
 4. Check the status of LED indicators to confirm the correct connections
 - Power : Red LED will be lit if the power is on.
 - Video In : Green LED will be lit if the video signal enters.
 - PoC Out : Green LED with PoC power out
 - Optic : Green LED will be lit if Transmitter and Receiver are connected each other.
 - RS485 : Green LED will be blinking during data is being entered.
 5. Check the monitor whether all connected channels are properly displayed.



PRECAUTIONS

Fiber-Optic Cable

1. For cable connection, do not bend the cable narrower than 30mm (Minimum allowable refraction range).
2. Do not pull the cable from both ends.
3. Do not spin the optical cable while the cable is connected to connector.
4. Do not knot the optical cable.



Coax Cable

1. HD-SDI maximum transmission distance depends on the cable manufacturer or installation environment.
2. The impedance of the coaxial cable and BNC connectors must be 75 Ohm. For your reference, please refer to the below table of cable recommendation.

Cable Type	Length of HD-SDI	Details of usage
3C2V	About 90M	For analog signal
4C-FB(T), 4C-HFB(T), RG59	About 140M	High-foamed, double or triple shielded cable is recommended
5C-FB(T), 5C-HFB(T), L-6CHD, RG6	About 180M	Dedicated cable for HD-SDI

Note) When selecting a cable, consider the maximum transmission distance of the cable which depends on its attenuation at 750MHz.
(dB/100m <25dB of attenuation is recommended.)

INPUT / OUTPUT / CONTROL

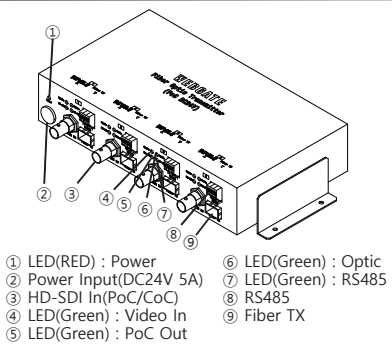
PoC(Power over Coax)

Technology to supply camera powers with coaxial cable when connected to WEBGATE's PoC DVR.

CoC(Control over Coax)

Technology to transfer camera control data with coaxial cable when connected to WEBGATE's PoC DVR.

COMPONENTS AND FUNCTION



TROUBLE SHOOTING

Trouble & Symptom	Way to Solve
Can not turn on the equipment, and LED indicators do not work.	<ul style="list-style-type: none">✓ Check the power is properly connected to the equipment✓ Check the input power voltage✓ If it does not work, please check the power adapter or replace it
Nothing shows on the screen.	<ul style="list-style-type: none">✓ Check video of camera that is connected to Transmitter. If there is no video output from camera, nothing could be shown on the screen✓ Check the power connection of camera✓ Check the cable connections between camera, converter and DVR
Can not control camera's OSD menu and PTZ	<ul style="list-style-type: none">✓ Check the RS485 connection among camera, converter and DVR✓ Check the polarity of RS485(+,-)✓ Check the setting of DVR and camera. If the setting values such as Baudrate, Protocol, Address are not properly configured, camera control can not be achieved.

Note) Foamed or High-foamed insulation cable is recommended.
Note) Double or Triple shielded cable is recommended

SPECIFICATION

Model	OPT-TX4-RS485P
Video Standard	HD-SDI SMPTE 292M
Resolution	SMPTE 274M(1080p25/30)
Function	Equalizing, Reclocking, Upstream Signaling, Power over Coax, Control over Coax
PoC	Power over Coax Max : 16W, DC24V
CoC	Control over Coaxial Baudrate : 57600
Impedance	75 ohm
Fiber Optic Type	Single-mode
Optic Connector Type	LC
HD-SDI Length	Approx 180m@5C-HFBT
Fiber Length	Approx 20Km at 1.5Gbps
Data Channel	RS485 Upstream (Remote control from DVR to Camera)
Indicator LED	Main Power(Red), PoC Power (Red), Link-Optic(Green), Link-SDI(Green), RS485(Green)
Operating Temperature / Humidity	+0°C to +50°C / 20%RH to 80%RH
Power consumption	Max 7.5W (without PoC)
Dimension (W x D x H)	140 X 239 X 54 mm
Weight	1kg
Certifications	KC, FCC, CE, RoHS, HDcctv