

# Ikegami

## *Ikegami Advanced RF Solution*

# *HDTV Digital Microwave Link System*



## *PP-57*

### *Compact Digital Microwave Transmitter*

- Compact and light weight one-piece construction for portable FPU or wireless camera system.
- Integrated HDTV Codec
- JPEG2000 compression available for low latency
- 200 mW output power for adequate distance

## *PF-504*

### *Digital/Analog 3-Mode Modulation Microwave Link*

- Portable design with easy setup
- Two-piece construction for remote control application
- Up to 3 modulation modes available  
(by factory order): OFDM, Single Carrier, and Analog FM
- Integrated HDTV Codec
- JPEG2000 compression available for low latency

# Ikegami Advanced RF Solution

# HDTV Digital Microwave Link System

## PP-57 Compact Digital Microwave Transmitter

Frequency Band: 7GHz or 10GHz (Factory order option)  
 Output Power: 200mW (7GHz Band) / 100mW(10GHz Band)  
 Video Input: HD-SDI or Analog Composite  
 Audio Input: 2 Analog (0dBm/600ohm/Balanced)  
 TS Input Signal: DVB-ASI (204 Byte incl. 16 Dummy Byte)  
 Transmission Mode: (Typical)

Bit-rate (Full-Mode/Half-Mode)	Modulation
59.648Mbps/29.824Mbps	64QAM-OFDM (5/6)
44.736Mbps/22.368Mbps	32QAM-OFDM (4/6)
29.824Mbps/14.912Mbps	32QAM-OFDM (1/2)
23.859Mbps/11.930Mbps	16QAM-OFDM (1/2)
12.912Mbps/7.243Mbps	DQPSK-OFDM (1/2)
7.243Mbps/3.621Mbps	DPQSK-OFDM (1/2)

Power Requirement: DC+12V

Dimensions

Main Unit (W×H×D): 140×70×210mm, 5.51×2.76×8.27inches

## Dockable HD/SD RF Camera Application (PP-57 TX + PF-504 RX)



- Mounting on an ENG camera HD-SDI realizes HDTV wireless camera.
- OFDM modulation maintains robust transmission even in multipath conditions.
- JPEG2000 codec has realized low latency.
- The system transmits about 3,000m in OFDM, 24 Mbps bit rate, with an omni TX antenna and 1-ft RX parabolic antenna.

## PF-504 Digital/Analog 3-mode Modulation Microwave Link

### ■ Feature

- Up to 3 modes of modulation are available: Single Carrier, OFDM and/or Analog FM
- Low latency JPEG 2000 compression technology
- Modulation mode, video format and other operational parameters can be set on the front panel
- Error log memory: Up to 80 error logs are stored.
- Status monitor out: Receiving status can be displayed on an external NTSC monitor, including display of delayed signal profile in multipath, constellation, spectrum analyzer, receiving level (BL), modulation error ratio (MER) and margin
- RS-232C (19.2kbps) signal can be transmitted in OFDM mode (optional)

### ■ Common Specifications

Frequency Band: 7GHz or 10GHz (Factory order option)  
 Preset Channel: Up to 11ch (Option)  
 Frequency Fluctuation: 2ppm or better  
 Transmission Spurious: 50 microW or better  
 Noise Factor: 3dB or better (7GHz Band) or 4dB or better (10GHz Band)

Control Cable Length: 300m max.(5D-2W Cable)  
 Power Requirement: 110V AC or 220V AC, or +12V DC

Dimensions

RF Unit (W×H×D): 180×100×350 mm, 7.09×3.94×13.78 inches

Control Unit (W×H×D): 180×120×350 mm, 7.09×4.72×14.57 inches

Video Input/Output: HD-SDI

Audio Input/Output: 8ch AES/EBU or Embedded in HD-SDI

### ■ Single QAM type

Output Power: 1.5W / 0.5W / 0.2W / 0.1W  
 Modulation: 64QAM / 32QAM / 16QAM / QPSK  
 Band Width: Within 15.5MHz  
 Symbol Frequency: 13.35403 MHz  
 Roll-off rate: 0.3  
 Error Correction: Trellis and Reed-Solomon (204, 188)  
 Bit-rate: 59.648Mbps To 29.824Mbps(Typical)

### ■ OFDM type

Output Power: 0.8W / 0.5W / 0.2W / 0.1W  
 Modulation: 64QAM/32QAM/16QAM/DQPSK/QPSK/DBPSK  
 Band Width: Within 17.5MHz (Full-mode)  
 Within 8.5MHz (Half-mode)  
 Number of FFT point: 1024 and 2048 (Option)  
 FFT Clock Frequency: 20.45074MHz  
 Error Correction: Convolution and Reed-Solomon (204, 188)  
 Bit-rate: Full-mode: 59.648Mbps To 14.912Mbps (Typical)  
 Half-mode: 29.824Mbps To 7.243Mbps (Typical)

### ■ Analog Type

Output Power: 5W / 1.0W / 0.2W / 0.1W  
 Modulation: FM  
 Band Width: Within 17 MHz  
 Frequency Fluctuation: Video: 3.2MHzp-p (@60Hz)  
 Audio Sub-Carrier: 0.8MHzp-p  
 Control Sub-carrier: 0.4MHzp-p  
 Video Input/Output: NTSC/1Vp-p/75ohm unbalanced  
 Audio Input/Output: 2ch, Analog/ 0dBm(+4dBm)/ 600ohm balanced  
 Control Input/Output: Analog/ 0dBm(+4dBm)/ 600ohm balanced

Design and Specifications are subject to change without notice.

# Ikegami

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