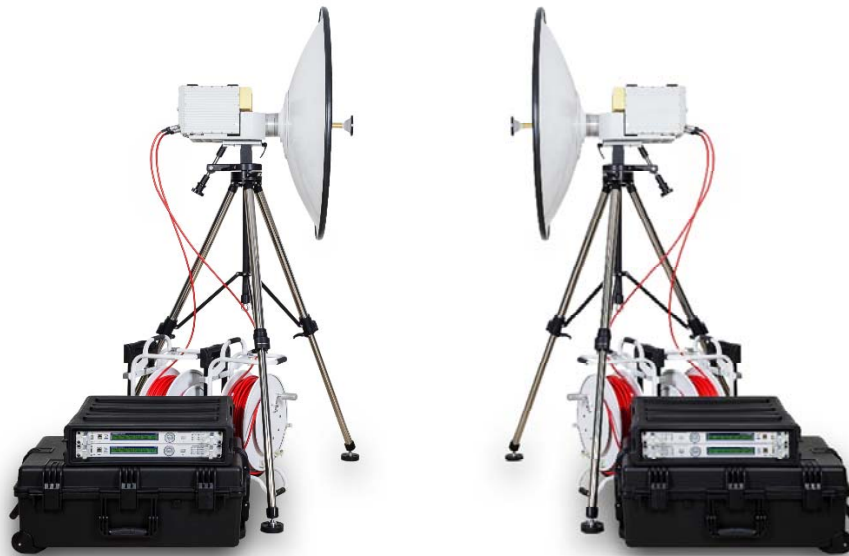




## Portable Video/Audio Link Series

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### **FNJ-PDML-HD-01**



Version 1  
2020



## Description

Fanamoj audio/video digital microwave portable link, FNJ-PDML-HD1, is a versatile, easy to use, easy to carry and rugged digital portable link. It is a unilateral radio link with a set up time less than 20 minutes. It interfaces directly to cameras of any type at the transmitter side without any additional equipment in between. The variety of standard inputs and outputs and wide range of supply voltage are considered as main features which make FNJ-PDML-HD1 a highly flexible solution. Utilization of multicarrier modulation and advanced channel coding techniques based on EN300744 and EN302755 standards has caused superior resiliency and robustness of link in urban as well as rural environments.

Putting all above in a nutshell, FNJ-PDML-HD1 is a highly economic, flexible and reliable solution for TV reportage applications or live covering of events.

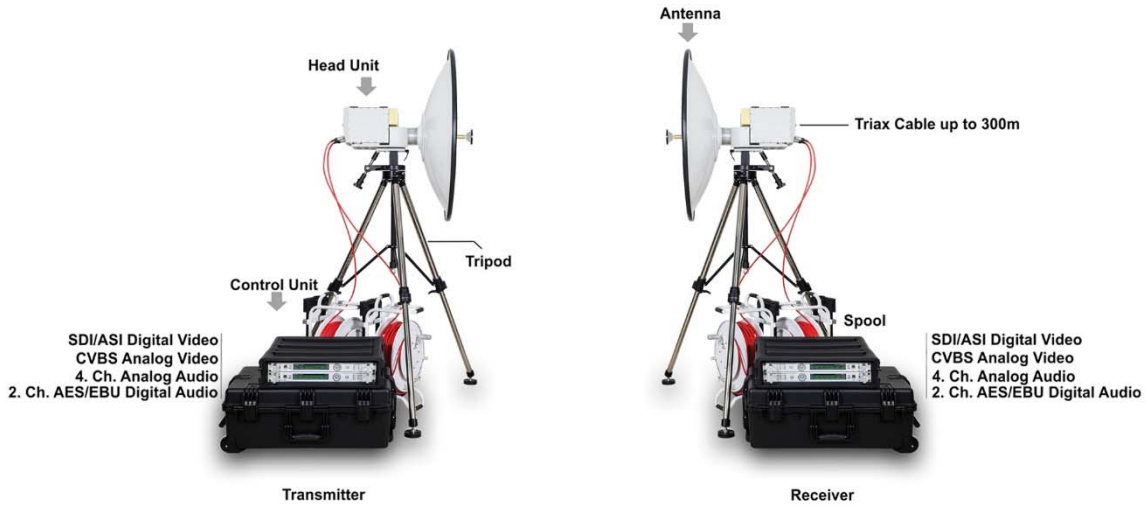


## Features

- Fully compliant to EN300744 and EN302755 Standards.
- Simple and quick installation and commissioning.
- Easy maintenance thanks to modular design.
- Equipped with NEL manufactured H.263/H.264 encoder core featuring low Processing delay.
- Weatherproof RF head units.
- Exceptional RF efficiency thanks to advanced pre-correction mechanisms.
- Excellent reliability due to the employment of 1+1 configuration and the ability to automatically switch over to redundant transmission.



# Block Diagram



## Technical Descriptions

### ➤ Technical Specifications

#### • RF Parameters

Frequency band of operation	10.2GHz to 10.7GHz
Tuning Resolution	1MHz
TX Output Power	Max 30dBm
RX sensitivity	-97dBm @ QPSK for QEF reception

#### • Coding and Modulation Parameters

##### ▪ DVB-T

Modulation Type	OFDM 2k, 4k, 8k
Guard Interval	1/4, 1/8, 1/16, 1/32
Modulation Modes	QPSK, 16QAM, 64QAM
FEC	1/2, 2/3, 3/4, 5/6, 7/8
Channel Bandwidth	7, 8 MHz
Maximum Throughput	31.67Mbps

##### ▪ DVB-T2

Modulation Type	OFDM 1k, 2k, 4k, 8k, 16k, 32k (Normal/Extended)
Guard Interval	1/4, 1/8, 1/16, 1/32, 1/128, 19/256, 19/128
Modulation Modes	QPSK, 16QAM, 64QAM, 256 QAM (Normal and Rotated)
FEC	1/2, 3/5, 2/3, 3/4, 4/5, 5/6
Channel Bandwidth	8MHz
Maximum Throughput	50.34Mbps

## • Video Input/Outputs

Composite Video (PAL/NTSC, 525 lines, 625 lines)  
 SD-SDI (complying SMPTE 259M along with SMPTE272M for audio embedding)  
 HD-SDI (complying SMPTE 292M along with SMPTE299M for audio embedding)  
 DVB-ASI (complying EN 50083-9)

## • Video Encoder/Decoder

Video Coding Standards: MPEG2, MPEG4 AVC /H.264

MPEG2 supported profiles and levels:

MP@ML	512 kbps~15 Mbps
422P@ML	3 Mbps~50 Mbps

MPEG4 AVC supported profiles and levels:

Profiles	Baseline, Main, High, High 422
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Levels	3, 3.1, 3.2, 4, 4.1
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Minimum achievable bit rate	256kbps
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## • Audio Inputs/Outputs

Two analog stereo channels  
 Two digital stereo channels with AES/EBU format

## • Audio Encoder/Decoder

Audio Coding Standards	MPEG1 layer II, AAC, ACC+, HE-AAC-V2
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## • Remote Control

Local User Interface	Character LCD and keypad
Connection Port	2x RJ45 (10/100 Base-T)
User Interface	WEB, SNMP v1/v2/v3

## • Physical

### ▪ Power Requirement

Operating Voltage	90~260 VAC
Power Consumption	30W max

### ▪ Weight

Head Units	App. 9kg
Control Units	8Kg
Parabolic Antenna	4Kg (60cm antenna with Feed)
Tripod	17Kg
Spool Weight	17Kg (With Cable)

### ▪ Dimension

Head Units	18 cm x 23cm x 10.5cm (H x W x D)
TX Control Unite	4.4 cm x 48cm x 50cm (H x W x D)

RX Control Units	4.4 cm x48cm x 50cm (H x W x D)
Parabolic Antenna Dimeter	60 cm (Gain: 32dBi). 90cm (Gain: 35dBi)
Tripod	1m
Spool Weight	17Kg (up to 300 meter Supported)

▪ **Environmental**

**Head Units**

Inventory Temperature	-30 ~ +55 °C
Operation Temperature	-20 ~ +50 °C
Altitude	5000m above sea level
Humidity	95%, Long term

**Control Units**

Inventory Temperature	-20 ~ +50 °C
Operation Temperature	-10 ~ +45 °C
Altitude	5000m above sea level
Humidity	95%, Long term

▪ **Compliance**

DVB	ETSI 300744 – ETSI 302755
ASI	DIN EN 500083-9
Environmental Conditions	EN 300 019-1-3 V2.3.2 (2009-11) Class 3.3
Power Supply:	
Safety	UL60950-1, IEC/EN60950-1, IEC/EN61558-1, EN61558-2-16, IEC/EN60335-1, CCC GB4943, TUV EN60950-1
EMC	EN55022 Class B, EN55014, EN61000-3-2/3, GB9254, EN61000-6-2, EN61000-4-2/3/4/5/6/8/11

• **Ordering**

Model	Type
FNJ-PDML-HD-01	Portable HD Link in 1+0 configuration
FNJ-PDML-HD-02	Portable HD Link in 1+1 configuration



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