



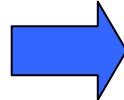
## Compact SNG System

Mitsubishi Electric Corporation



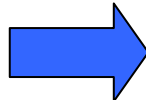
1. Advantages
2. System configuration
3. Setup image
4. System diagram
5. Specification
6. Optional Equipments

Compact dish / High mobility



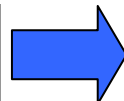
- Auto tracking 40cm dish antenna
- Agile setup & HDTV transmission at site
- Installable on SUV & Mini-van
- No-need of jack for stabilizing vehicle body

High definition/ efficiency



- HDTV transmission by DVB-S2 satellite modem and H.264 video codec

Simple installation &  
Transportable



- No waveguide interface between roof and internal equipments
- Antenna & RFU are detachable, transportable with a container and could be used as a Flyaway.



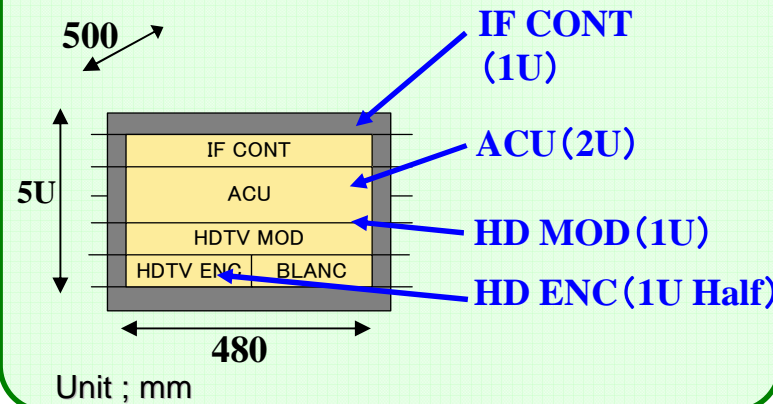
### <Basic Configuration>

Component	Qty
Antenna	1
Transmitter (RFU)	1
Antenna Control Unit (ACU)	1
IF Control Unit ( IF CONT)	1
HDTV Modulator	1
HDTV Video Encoder	1
CH MODEM , Tel(*1)	1
System Control Unit (*1)	1
Vehicle Equipment with Power Supply(*1)	1
GPS / Magnetic Compass Module (*1)	1
Audio and Visual Equipment (*1)	1

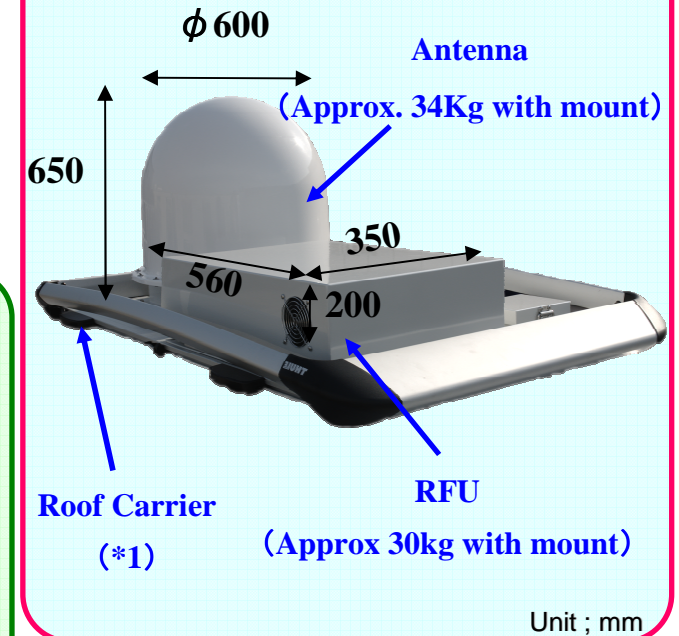
(\*1): Options

### Internal equipments for communication

(19 inch Rack Mount, Approx. 35kg)



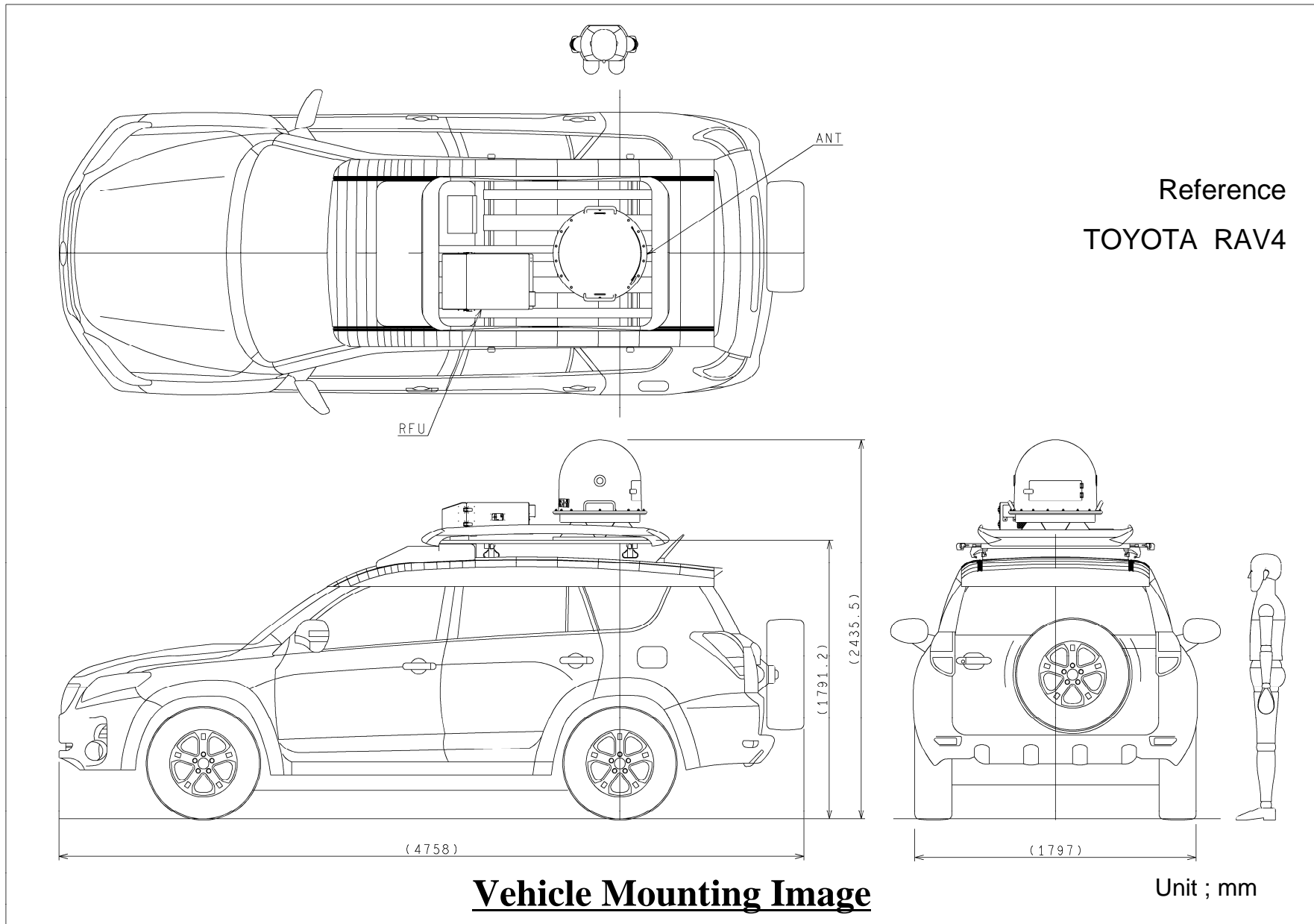
### External equipments on roof

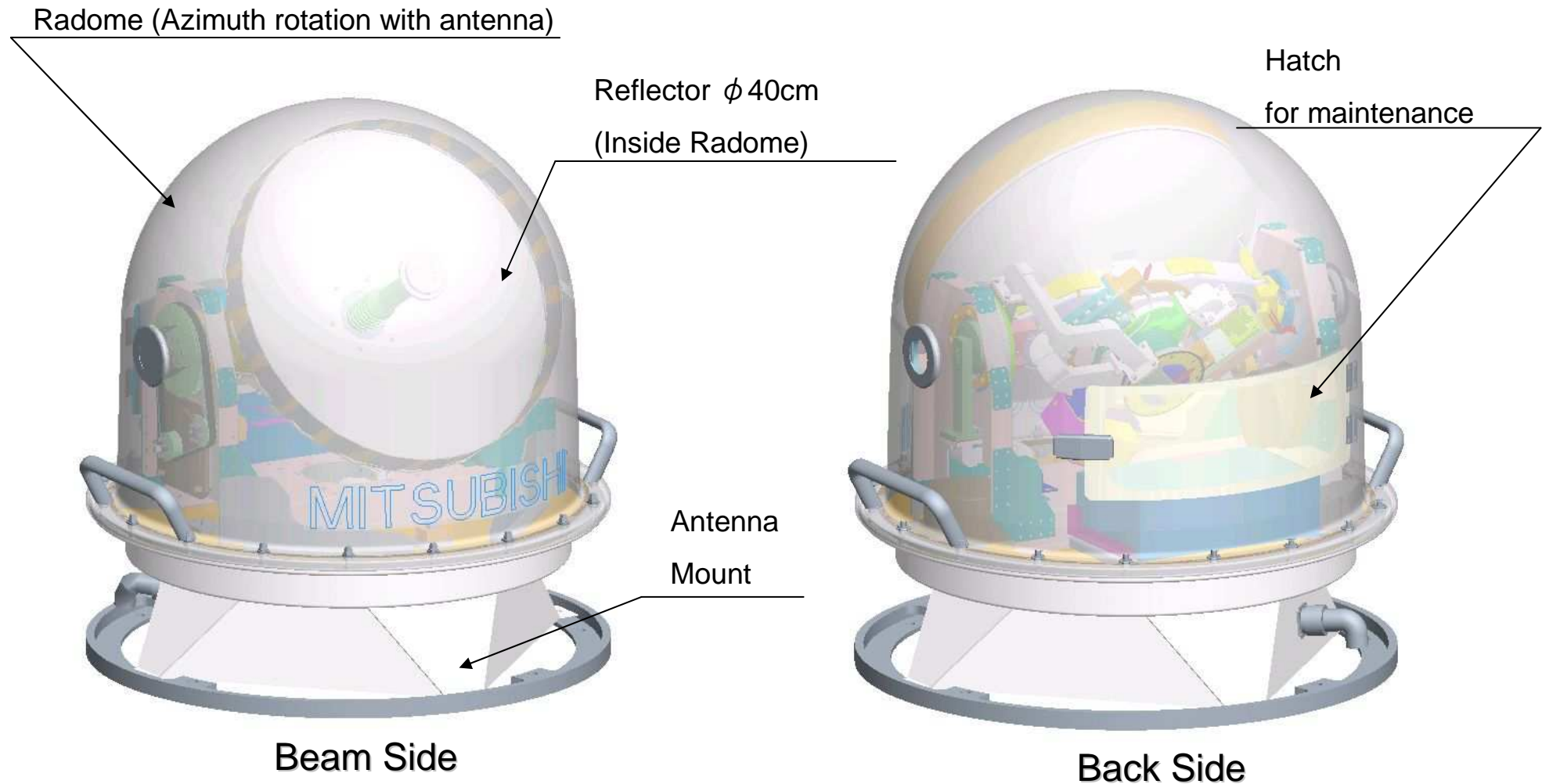


\*:The photograph and the illustration are images. Actual externals, the size, and weight might change by a detailed examination.

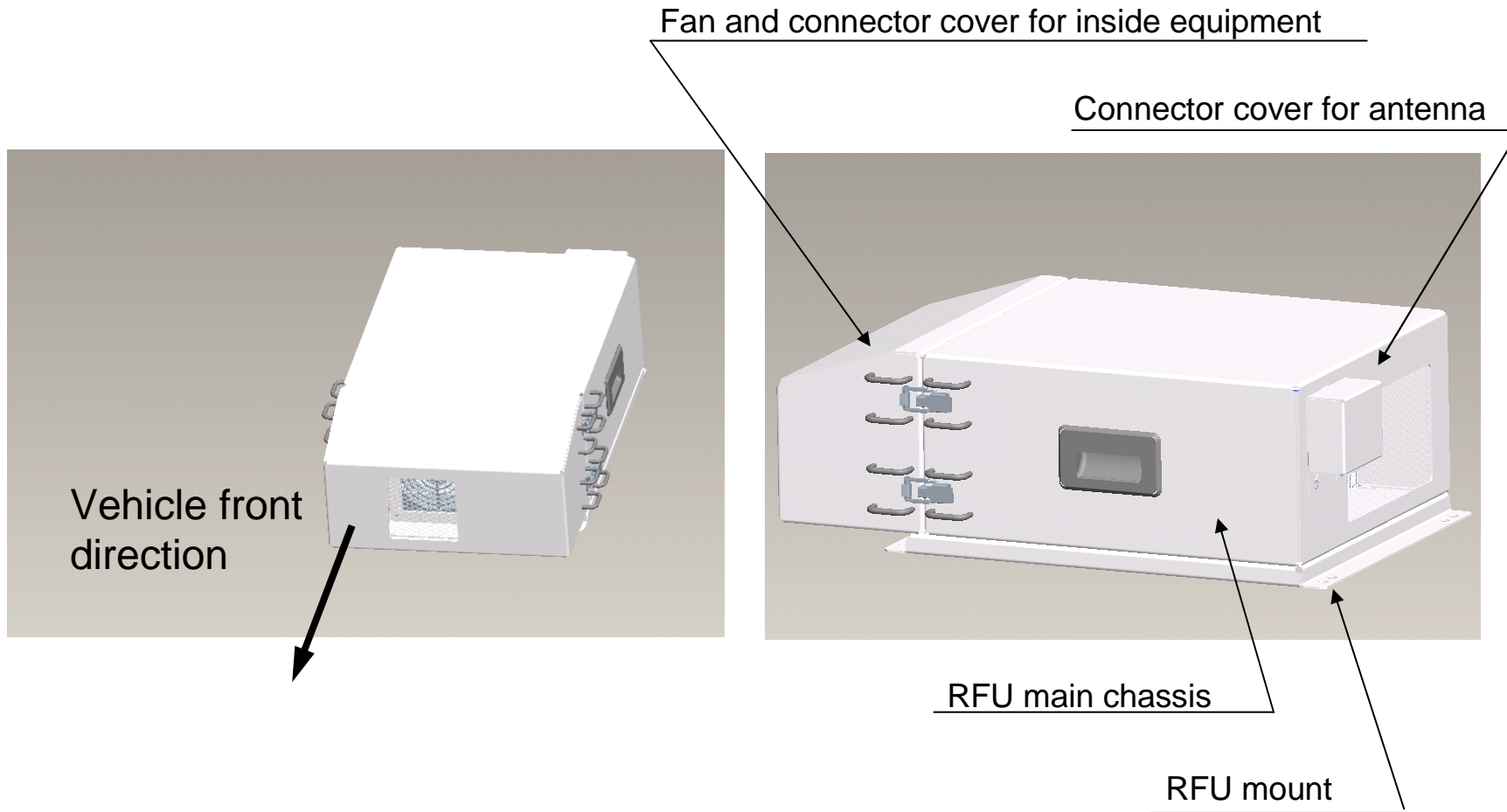
➤Original Vehicle ; TOYOTA RAV 4







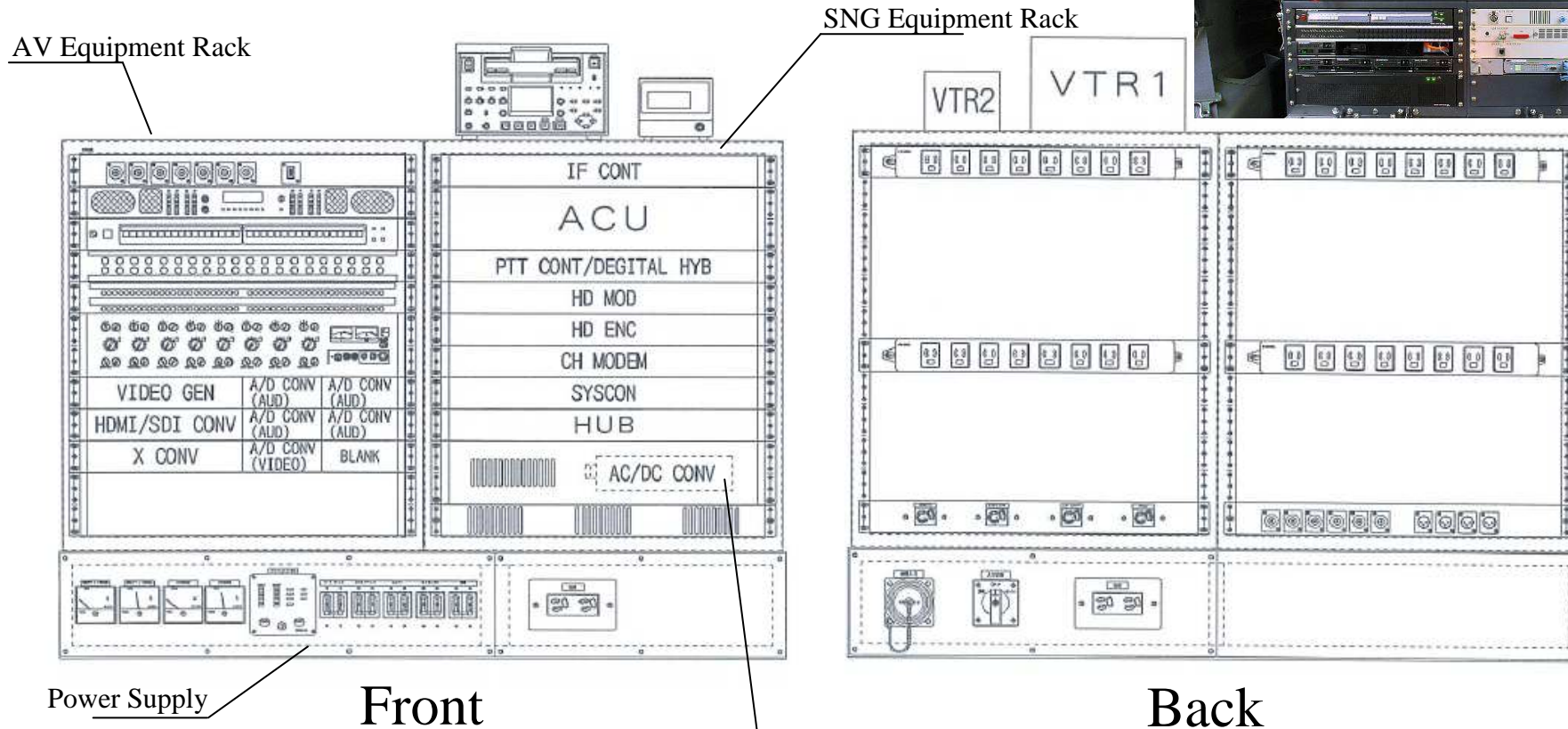
## Antenna Image



## RFU Externals Image



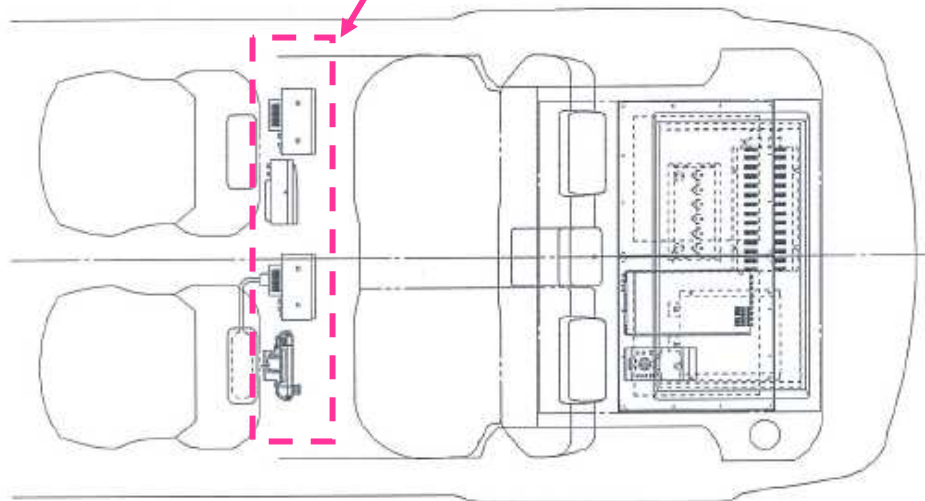
## ➤ Rack Mount Example



- Rack : 19inch rack 12U (W × H × D = 500 × 570 × 500)
- Example AV Equipment : 11U
- SNG Equipment : 9U

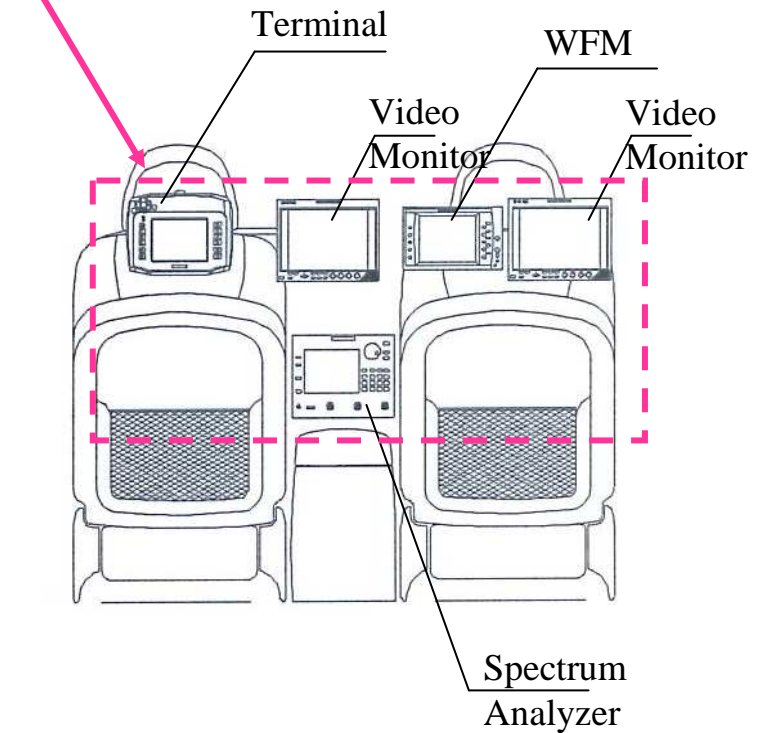
AC/DC Converter for Antenna

## ➤ Monitor and Control Example

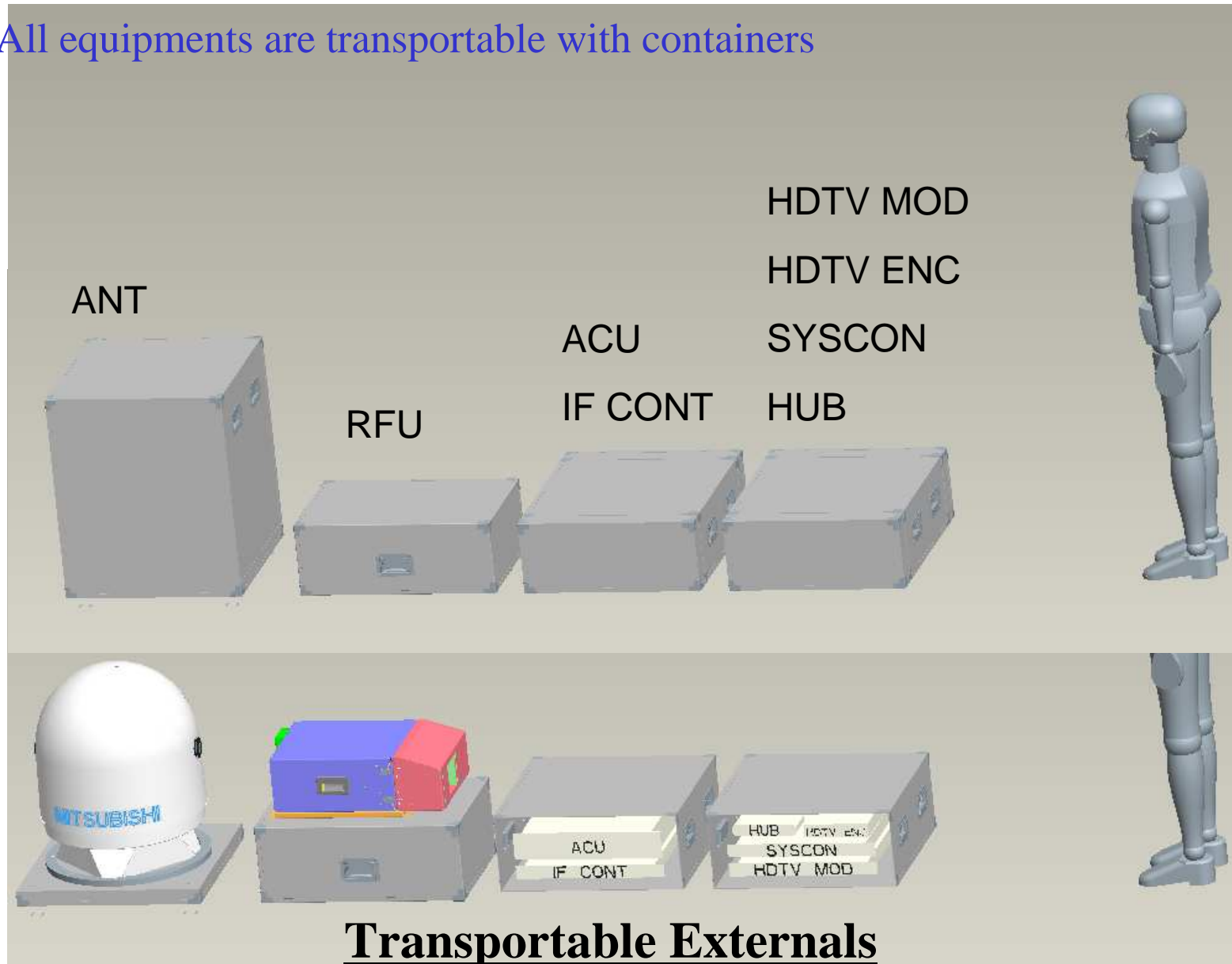


Front  
Sheet

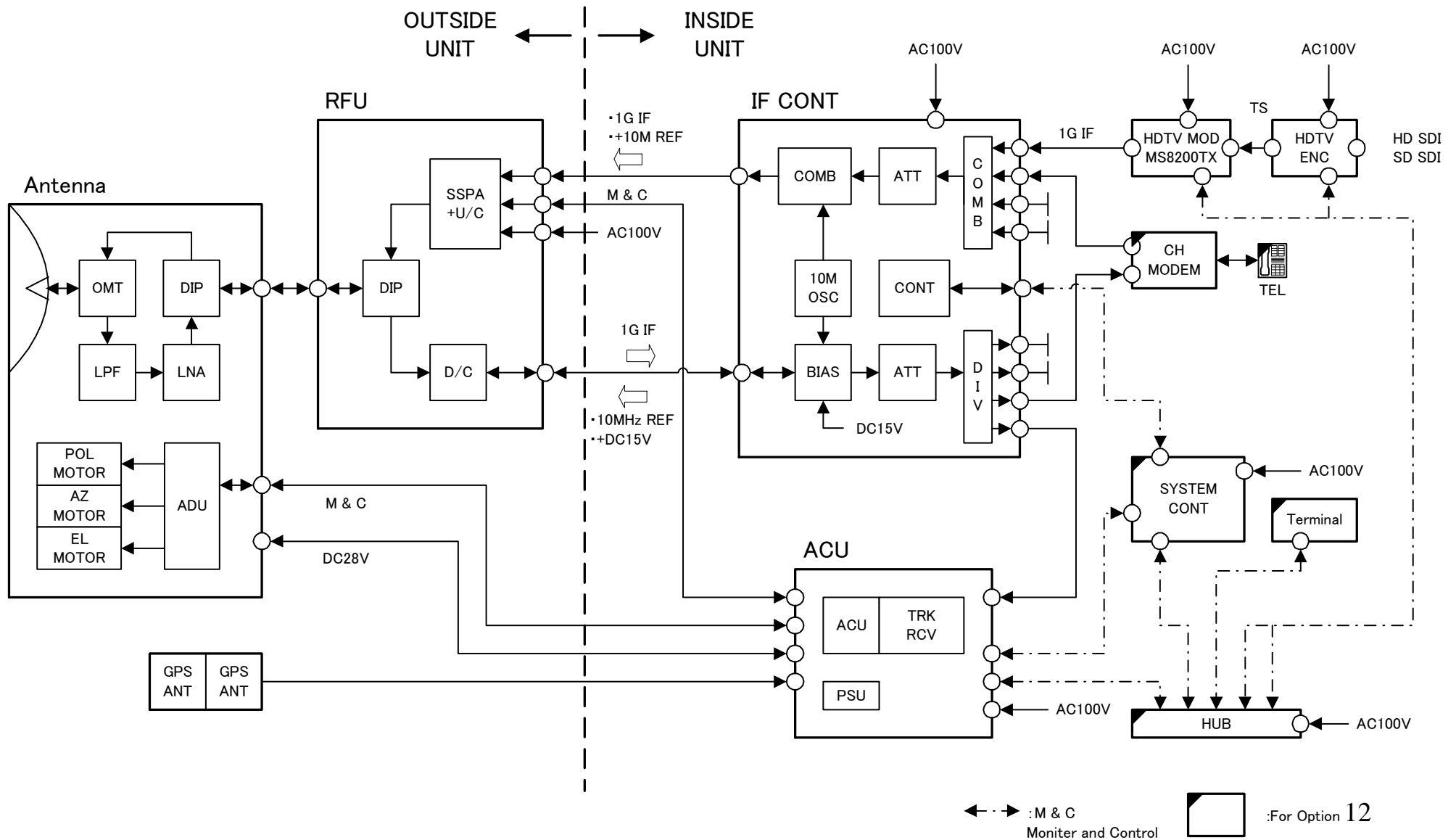
Rear  
Sheet



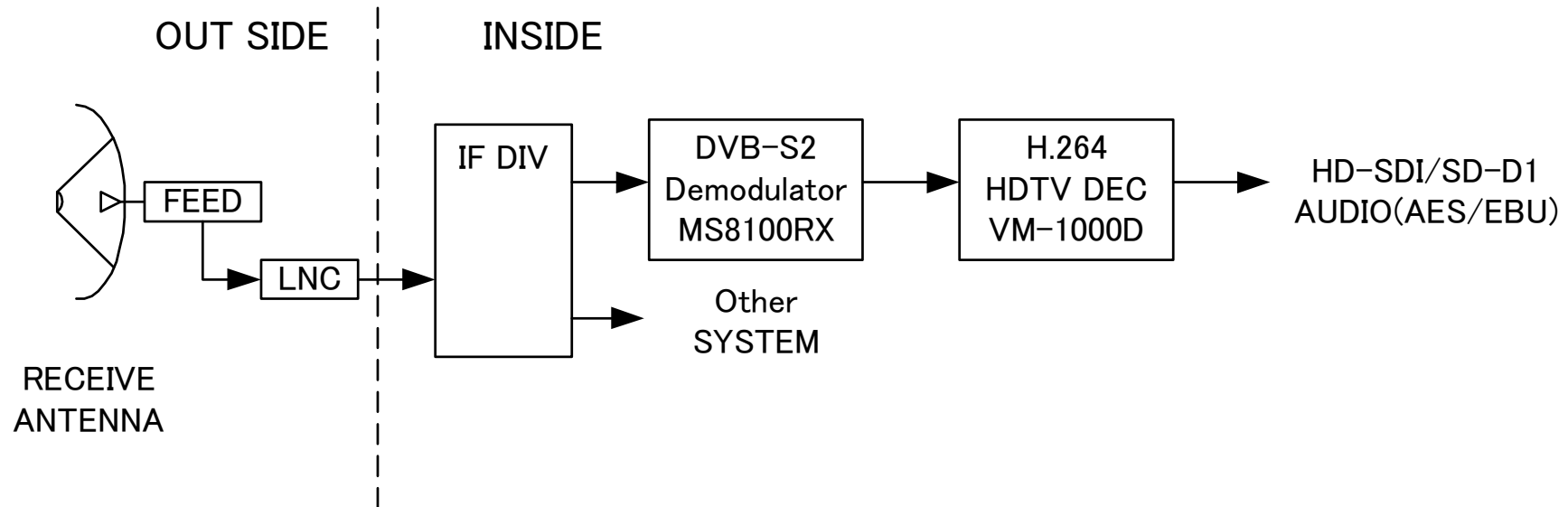
All equipments are transportable with containers



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## RX Only System Configuration

In Needs of TEL ,Add the Equipment for transmit.

Item	Specification
RF Frequency	Transmit :14.0~14.5GHz Receive :12.25~12.75GHz
Maximum EIRP	47.7dBW(*1) (*1)Necessary for coordination to satellite operator
Video and Audio CH	Video ; 1ch (HDTV or SDTV) Audio ; MAX 8ch
DISH	Φ40cm Parabola Gain: TX 32.5dB RX 31.3dB
Drive Range	Elevation :15deg~75deg Azimuth :No limit
RFU Transmit Power	49dBm(80W) (1dB G.C.P)
RF Polarization	Linear ; Orthogonal between TX/RX
IF Frequency	Transmit IF :950~1450MHz Receive IF :950~1450MHz

Item	Specification
Modulation	Conform to DVB-S2、DVB-DSNG (32APSK、16APSK、16QAM、8PSK、QPSK)
Video Encode method	Conform to MPEG4 AVC/H.264
Audio Encode method	MPEG-2AAC LC、LPCM (SMPTE302M)
Video Interface	SDI、HD-SDI
Audio Interface	Multiplex SDI、AES/EBU 8ch
Temperature	OUTSIDE UNIT :-10~45°C INSIDE UNIT :0~40°C
SIZE	Antenna :644(H)×600(φ) RFU :350×200×560 ACU :2U、IF CONT:1U HDTV Mod:1U、HDTV ENC :1U Half
Weight	Antenna:34kg RFU :30kg ACU :15kg IF CONT:8kg HDTV MOD :8kg HDTV ENC :4kg
Power Supply / Consumption	Antenna & ACU: AC100~240V / 250W RFU: AC100~240V / 670W IF CONT: AC100~240V / 100W HDTV MOD: AC100~240V / 80W HDTV ENC: AC100~240V / 50W

《Example of parameter for HDTV Transmission 》

Mode	A	B	C
Modulation	QPSK(DVB-S2)	QPSK(DVB-S2)	QPSK(DVB-S2)
FEC Rate	4/5	2/3	1/2
Symbol Rate	7.072Msps	7.072Msps	7.072Msps
TS Rate	11.0Mbps	9.1Mbps	6.8Mbps
Threshold C/N	5.5dB	3.9dB	2.2dB

The availability of Compact SNG System depends on the capability of Satellites.

### 1. Satellite Telephone (Bidirectional)

- ◆ Adding Channel Modem (EIA 1U size)

Enables communicating with the station as the Orderwire even in dead zone of mobile phones

### 2. Monitor and Control

- ◆ Adding System Controller

Enables monitoring and controlling the overall system.

Easy operation with touch panel interface.