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ADIVIC

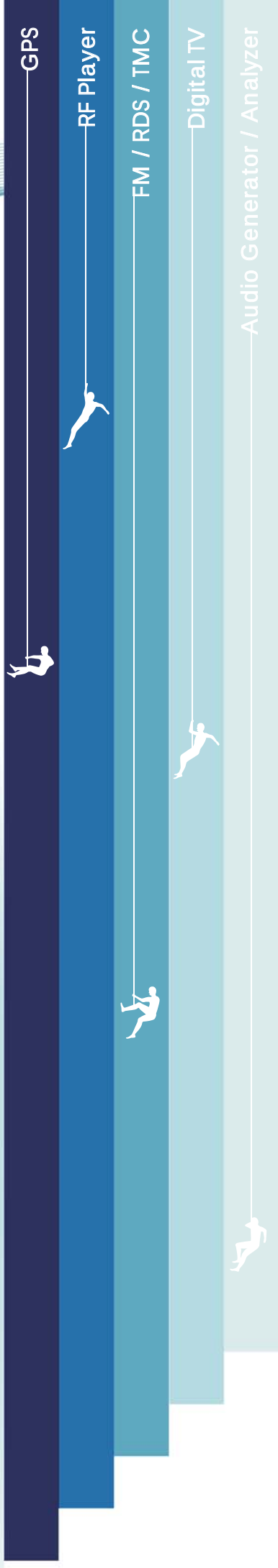
RF TECHNOLOGY ARCHITECT

Desire • Innovation

MP RF STATION 9000 2011

>> Wireless Communication Test System

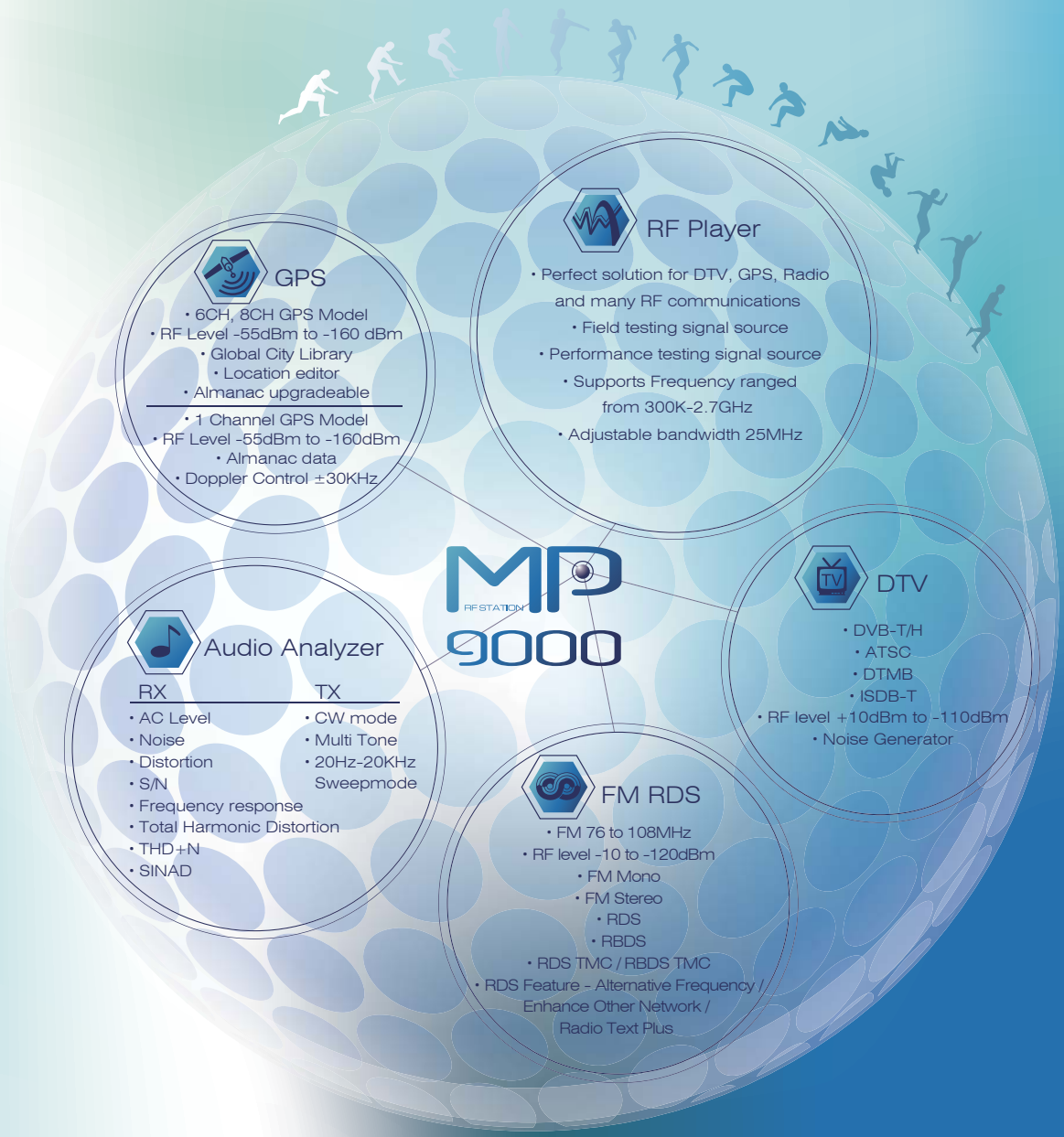
- GPS
- RF Player
- FM / RDS / TMC
- Digital TV
- Audio Generator / Analyzer



ADIVIC

Product Features

Multi-Standards RF Communication Testing tool



Overview

ADIVIC proudly introduces the new model - MP9000 RF Station. MP9000 provides a platform that adopts different wireless communication modules into variety of combinations for different purposes & standard requirements of tests including GPS, FM RDS/TMC, DTV, Audio Analyzer and all one way communication standard. The MP9000 allows the users to implement single or multiple standards testing, such as concurrent parallel testing and sequence-based testing. MP9000 is sophisticated for R&D applications, and the user friendly GUI also makes it ideal for production line applications. By bringing in the concept of one does all, MP9000 would greatly benefit the customers with dramatic time saving and high-level of cost-effectiveness.

Operation

An easy-to use GUI and an integrated 10.2” Touch panel fully conform with one of its designations to provide an user-friendly environment which allows the users to easily control the MP9000 functionalities. Speaking of compatibility, the USB and Ethernet ports are implemented to allow the users to easily integrate the MP9000 into the production-line ATE for production test purpose covering the semi-product (PCBA) and end product test.

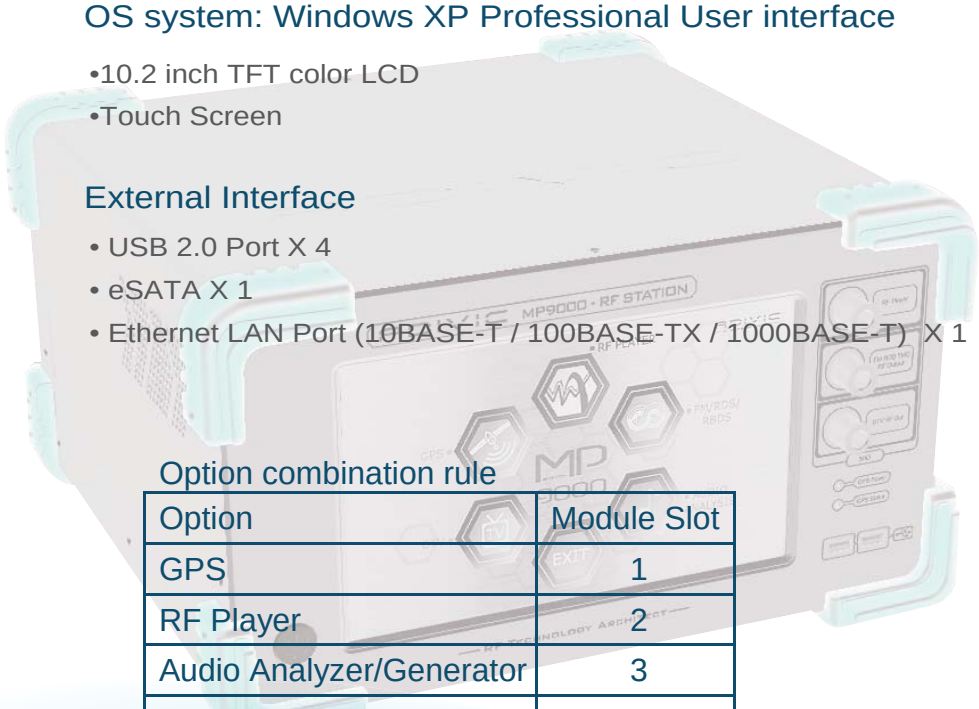
SPECIFICATION

System Specifications

- Processor: Intel Core 2 Duo Series
- Memory: DDRII 667 2GB
- System storage: SATAII 320G HDD or above
- Power supply: AC 100 to 240V, 50/60Hz
- Operating temperature: 0 to 50℃
- Operating humidity: 0% to 95% RH (Non Condensation)
- Storage temperature: -20 to +80℃
- Dimensions: 360(L) x 340(W) x 200(H) mm
- Weight: Approx.17Kgw

OS system: Windows XP Professional User interface

- 10.2 inch TFT color LCD
- Touch Screen



External Interface

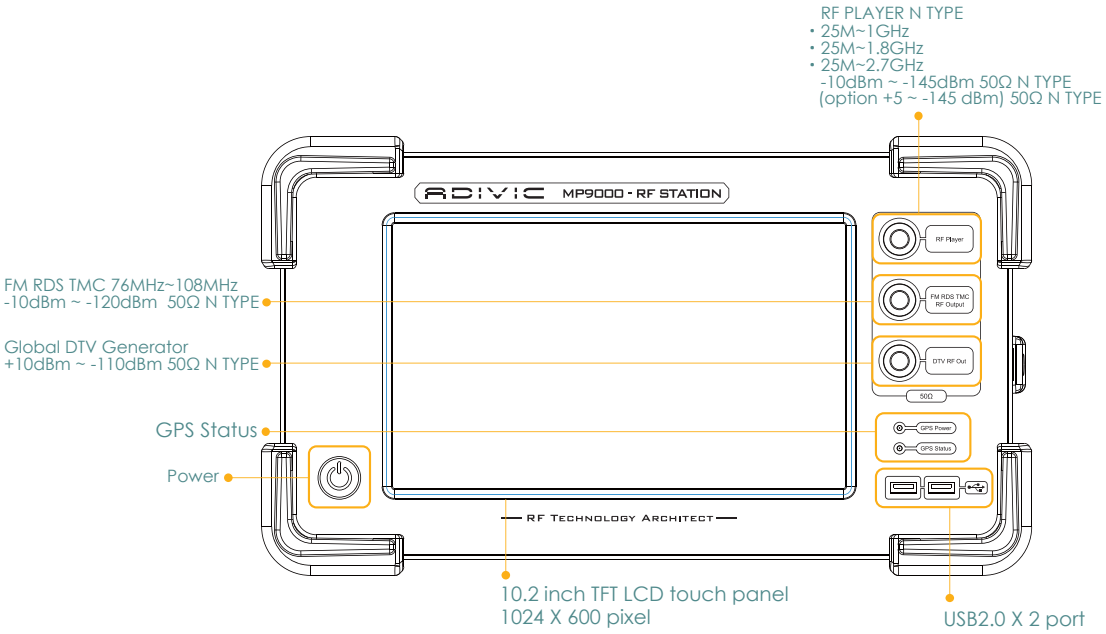
- USB 2.0 Port X 4
- eSATA X 1
- Ethernet LAN Port (10BASE-T / 100BASE-TX / 1000BASE-T) X 1

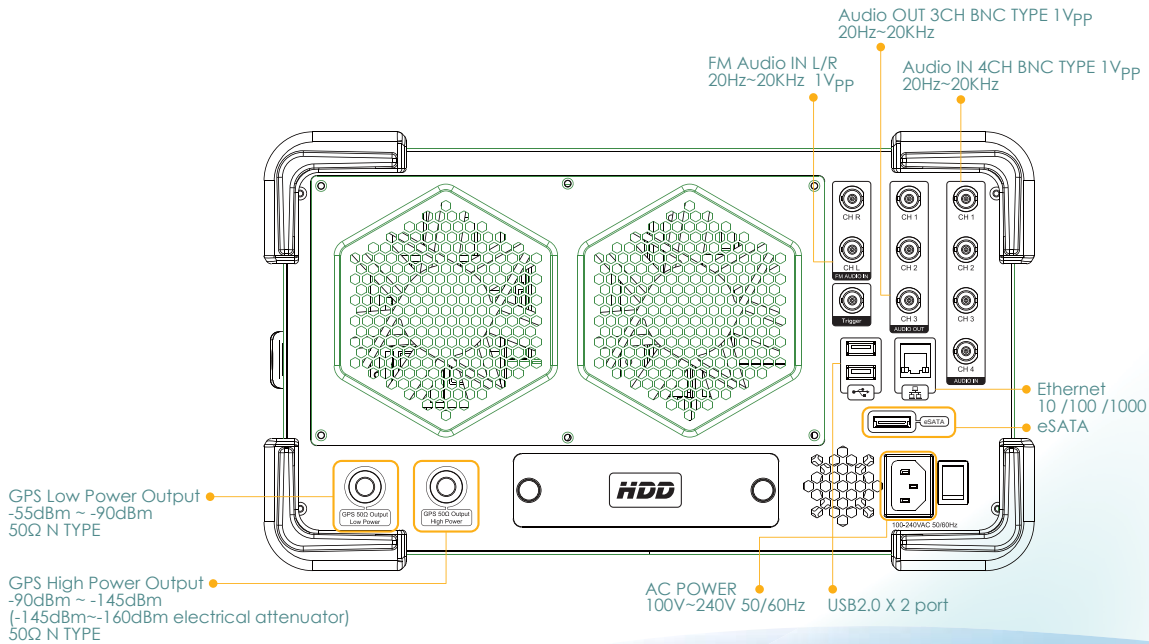
Option combination rule

Option	Module Slot
GPS	1
RF Player	2
Audio Analyzer/Generator	3
FM RDS TMC	1
Digital TV	2

System module slot is 4
All Option module slot combination must ≦ 4
GPS + RF Player + FM RDS TMC = 4 ≦ 4
1 + 2 + 1 = 4 ≦ 4

Operation


RF PLAYER N TYPE
• 25M~1GHz
• 25M~1.8GHz
• 25M~2.7GHz
-10dBm ~ -145dBm 50Ω N TYPE
(option +5 ~ -145 dBm) 50Ω N TYPE
ADIVIC MP9000 - RF STATION
RF Player
FM RDS TMC RF Output
DTV RF Out
50Ω
GPS Power
GPS Status
RF TECHNOLOGY ARCHITECT
FM RDS TMC 76MHz~108MHz
-10dBm ~ -120dBm 50Ω N TYPE
Global DTV Generator
+10dBm ~ -110dBm 50Ω N TYPE
GPS Status
Power
10.2 inch TFT LCD touch panel
1024 X 600 pixel
USB2.0 X 2 port


Audio OUT 3CH BNC TYPE 1VPP
20Hz~20KHz
FM Audio IN L/R
20Hz~20KHz 1VPP
Audio IN 4CH BNC TYPE 1VPP
20Hz~20KHz
CH R
CH L
FM AUDIO IN
Trigger
CH 1
CH 2
CH 3
AUDIO OUT
CH 1
CH 2
CH 3
CH 4
AUDIO IN
Ethernet
10 /100 /1000
eSATA
HDD
100-240VAC 50/60Hz
GPS Low Power Output
-55dBm ~ -90dBm
50Ω N TYPE
GPS High Power Output
-90dBm ~ -145dBm
(-145dBm~-160dBm electrical attenuator)
50Ω N TYPE
AC POWER
100V~240V 50/60Hz
USB2.0 X 2 port

RF Player Option

Overview

ADIVIC RF PLAYER is an exquisite RF- engineering tool for both field testing and performance testing. It has the capability of replacing many expensive instruments from one RF communication to another. It is by far the only instrument which crosses over RF communication standards from the past, the present and the future. RF PLAYER is meant for all existing RF communications, for all modulation schemes, for analogue and digital. MP9000 plays the streams recorded from the ADIVIC's RF Recorders.

Supports Communication standards including

Worldwide radio communications

- FM/RDS/TMC
- IBOC - HD Radio
- Satellite Radio
- DAB
- AM
- DRM

Worldwide navigation systems

- CNSS
- GPS
- GLONASS
- GALILEO

Worldwide Mobile DigitalTV standards

- DVB-T/H
- DVB-NGH
- DVB-T2
- DVB-SH
- T-DMB
- DVB-C
- DVB-C2
- CMMB
- ISDB-Tsb
- ISDB-Tmm
- ISDB-T
- MediaFLO
- ATSC-MH
- OPEN CABLE
- ATSC
- DTMB
- NTSC
- PAL
- SECAM

RF Player
Performance Specifications

Frequency Characteristics

- Frequency range .....300 K ~ 30 MHz (option)
  25 MHz ~ 1 GHz
  25 MHz ~ 1.8 GHz
  25 MHz ~ 2.7 GHz
- Real-time bandwidth (Digital vector modulation bandwidth) .....25 MHz maximum
- Frequency resolution.....1KHz step minimum
- Warm-up time (typical) .....30 minutes
- Temperature stability.....+/-20 ppb maximum
- Aging
  - Per year.....+/-100 ppb maximum
  - Per day .....+/-1 ppb maximum
- Initial achievable accuracy.....+/-50 ppb maximum

Spectral purity

- Phase Noise@1KHz, 1Ghz.....<-80 dBc/Hz

Spurious Responses

- Second harmonic.....< –40 dBc
- Output third-order distortion (IMD)
  - (two -13 dBm tones, >200 kHz apart).....-70 dBc typical
- LO leakage.....<-80dBm

RF Output Characteristics

- Output power range @ CW mode .....-10 dBm to -145 dBm minimum
  option +5 ~ -145 dBm
- Amplitude resolution.....0.1dB step minimum
- Amplitude accuracy.....<+/-1dB -100dBm ~ -5dBm
  <+/-2dB < -100dBm
- Output Impedance.....50 ohms

Voltage Standing Wave Ratio (VSWR)

- 25 MHz to 2.7 GHz .....<1.7:1

Overload protection on RF output

- Maximum reverse RF power .....1 W maximum
- Maximum DC input.....±50 VDC

Noise Floor@1GHz

- -10dBm output power.....<-120dBm/Hz
- -20dBm output power.....<-130dBm/Hz
- -30dBm output power.....<-140dBm/Hz
- -40dBm output power.....<-150dBm/Hz
- -50dBm output power.....<-160dBm/Hz

Flatness

- IF Band(20MHz) flatness.....1 dB Typical
- Group delay.....30 ns Typical

IF Band

- Resolution.....14 bits
- Sample.....100MS/s

Storage

- Storage.....SSD:600 GByte (recommend option)
  HDD: 1 Tera Standard

Calibration

- Calibration .....1 year

Environmental

- Operating Environment
- Operating temperature .....0 to +50°C
- Relative humidity.....10 to 90%
- Storage temperature .....-20 to 70 °C
- Relative humidity.....5 to 95%

Power

- AC.....100V to 240V

A Member of WPG Holdings
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