

**HIGH LINEARITY DUAL AMPLIFIER WITH SLAVE PORT AND COMBINER INTEGRATED**


## Main Features

- Slave module with frequency meter for single frequency application
- 330 MHz Bandwidth
- Quadruple in quadrature output stage for high rejection to intermodulation
- Output power up to 2 Watt (/2W0 option) or 1 Watt with combined channels
- 2:1 power combiner integrated (software selectable)
- SWR (Stationary Wave Ratio) sensing on antenna outputs with control loop to set power output
- Remote Monitor/configuration thru Ethernet port
- Compact profile with connector on front to be easily integrate on plastic cases for remote application
- Dual DC INPUT: 10-28Vdc thru DB25 connector

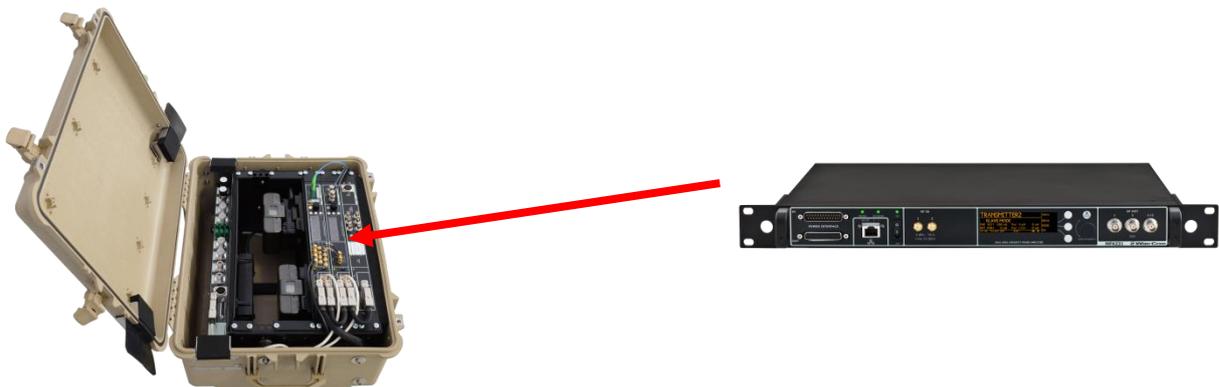
## Description

MPA221 is a dual amplifier especially designed to be a companion of the MTK952. In a typical configuration MTK952 generate the local carrier and also (in master mode) a reference signal in isofrequency that can be transported thru coax of fiber (i.e. with MFL) and used as source for MPA221 to create a remote RF transmission (single frequency areas).

MPA221 as a frequency meter to lock on source carrier and to setup properly all internal filtering. Thanks to an integrated calibrated direction coupler MPA221 is able to measure the real transmitted power and uses this feedback to proper setup the gain and protect in case of antenna failure.

Maximum output power is 2 watt on each of 2 separated output or 1 watt per carrier on 1 output combined.

The units is designed with a low profile and all connectors in front to be easily integrated into plastic case for remote application.



It can be installed on both fiber box system or standard rack mount system. The following power supply accessories are need for standard rack mount system:

PSP15019



CASDB25



## TECHNICAL SPECIFICATIONS

|                                         |                                                                                                                                                                                 |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Switchable channels</b>              | 2400 allocated by 40 groups of 60 channels quickly selectable with dedicated buttons                                                                                            |
| <b>Frequency bandwidth</b>              | 470-800 MHz                                                                                                                                                                     |
| <b>Switching bandwidth</b>              | 330 MHz tunable in 5 kHz steps                                                                                                                                                  |
| <b>Temperature range</b>                | -10 ÷ +55 °C                                                                                                                                                                    |
| <b>RF output power</b>                  | Selectable from 10mW to 2000mW                                                                                                                                                  |
| <b>Max RF output power</b>              | MPA221-EU: 200mW<br>MPA221-EUX: 2Watt<br><small>[NOTE] RF power can be limited on frequency base accordingly to specific country restrictions (software based)</small>          |
| <b>antenna outputs</b>                  | 3 BNC type female connectors: <ul style="list-style-type: none"> <li>• transmitter1</li> <li>• transmitter2</li> <li>• combination of transmitter 1 and transmitter2</li> </ul> |
| <b>RF inputs</b>                        | 2xSMA connectors                                                                                                                                                                |
| <b>RF impedance</b>                     | 50 Ω                                                                                                                                                                            |
| <b>Spurious emissions</b>               | < 2 nW (in the transmitter bandwidth)                                                                                                                                           |
| <b>Display</b>                          | 64 x 256 OLED (yellow)                                                                                                                                                          |
| <b>Configuration/monitor interfaces</b> | 10/100 Base TX Ethernet port on RJ45 connector                                                                                                                                  |
| <b>Power supply</b>                     | 10-28Vdc thru DB25 connector                                                                                                                                                    |
| <b>Dimensions</b>                       | 19"1/2U 483 x 215 x 44 mm (WxDxH) with brackets                                                                                                                                 |
| <b>Weight</b>                           | 2.7Kg                                                                                                                                                                           |

