# WV Communications

## Solid State Power Amplifiers

WV Communications designs, develops and manufactures a full suite of Solid State Power Amplifiers (SSPA's), utilizing standard COTS Amplifier Modules and High Power/Low Insertion Loss components. Our SSPA product line is in use and operational at Test Ranges, Satellite Ground Stations, and on high dynamic Mobile and Fixed Antenna Systems around the World in some of the harshest environmental conditions found. The SSPA's incorporate the latest engineering designs using LDMOS and GAN device technologies providing for higher gains and ultra-high efficiencies typically exceeding 50, while providing exceptional overall system reliability and performance. That design heritage and experience, along with WV Communications commitment to quality and customer support, makes WV the answer for all your Solid State Power Amplifiers requirements.

The SSPA's are designed with integral power supplies and microprocessor controller sensing, monitoring and controlling all functions and performance of the SSPA including: RF output power adjust, temperature/thermostat shutdown, forward/reflected RF power levels, power amplifier module current detection and sensing, and overall SSPA voltage and current. Additionally, some models in our SSPA product line have built-in redundancy and Auto Failover capability resulting in minimal RF power reduction in the event of a power amplifier module failure. All of these functions described can be controlled either locally or remotely via either Serial RS-232/422/485 and Ethernet.

WV Communications SSPA's are modular in design allowing additional power amplifier modules to be added for higher power levels. Our years of engineering experience in high-power/low insertion loss combining techniques provides for fewer power modules while maintaining a robust and reliable SSPA design. Our diversified and comprehensive product line includes SSPA's operating in Class "A", "AB" and Pulse configurations with power levels from 1 watt to Multi-kW's, operating from VHF to Ku-Band, and are designed for indoor or outdoor operation where rigorous environmental conditions persist.

### ***PRODUCTS***

| Frequency | RF Output Power |
|---|---|
| 100-400MHz | 50 to 1000W |
| 370-550MHz | 500W, 1, 2, 4, 8 & 10kW |
| 1750 - 1850MHz | 50-500W, 1, 2, 4 & 8kW |
| 1750 – 2120MHz | 50-500W, 1, 2, 4 & 8kW |
| 2025 - 2120MHz | 50-500W, 1, 2, 4 & 8kW |
| 2200 - 2400MHz | 50-500W, 1, 2 & 4kW |
| 5850 - 6450MHz | 20-150W |
| 13.75 -14.50GHz | 20, 50 & 100W |
| 14.00 -14.50GHz | 20, 50 & 100W |
| 14.00 -14.85GHz | 20, 50 & 100W |

***Rack mounted Unit***

***Outdoor Unit***

WV Communications can provide additional product solutions that will satisfy your unique or custom system requirements, along with meeting or exceeding all of your technical specifications. Contact our engineering team for additional information for all your engineering and technical support requirements.

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