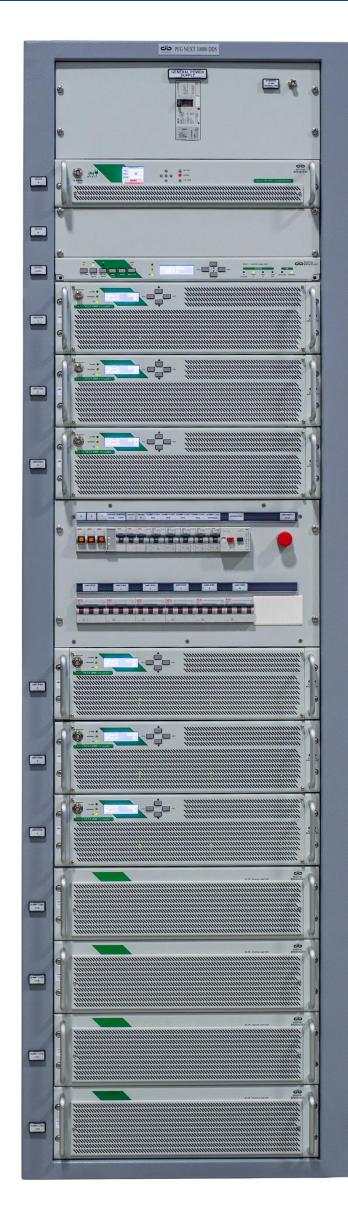


PFG & PFG NEXT Series: Modular FM transmitters



## GREEN RF™ TECHNOLOGY





The PFG series of Modular FM transmitters is designed to operate in the whole 87.5 – 108 MHz frequency range for FM radio broadcasting applications and it covers a power range from 100W to 40kW.

### GREEN RF<sup>™</sup> technology

The GREEN RF<sup>™</sup> technology, combined with the new 65:1 devices, is the latest evolution of the world-famous patented COLD-FET™ technology applied on DB's transmitters. The main advantages are:

- Higher safety
- Lower heating



High RF efficiency (>70%)

Higher reliability

Lower AC power consumption.



# TECHNICAL FEATURES

#### Complete remote control

PFG series has an extremely complete Web server and SNMP remote control system, available as option.



		-
1	-	
		_
		1.0
		-
		_
		-
		-

5		1745 - A.A.					The second second				
		Amplif	fiers analogio	measures, alar	ms and war	nings are showe	ed in this pag	e.			
				- AMPLIFI	ERS ME	EASURES					
DHD	0551		10	142		10	10		15		
FWDout	REFL	V1	VZ	V3	n	12	13	14	15	16	
5412W	35W	37.5V	37.5V	37.5V	29.1A	29.5A	27.1A	29.5A	30.3A	29.4A	
5441W	140W	44V	43.9V	43.9V	22A	23.7A	22.8A	24.3A	23.4A	22.9A	
						ARMS -					
SYSTEM A	LARM	ALARM TEMPERATURE		ALARM REFLECTED		ALARM OVERDRIVE		SHUTDO	WN	ENABL	E
•		٠		• •			•		•		
•		•		•		٠		•		•	
•		•		•		•		•		•	
•		•		•		٠		۰		٠	
				AMPLIFIE	RS WA	RNINGS -					
NO FWD RE	ADINGS	DERAT	ING	RF-3d	В	TEMPERA	TURE	FOLDBACK	REFL	UNBALAN	NCE
•		•		•		•		•		•	
•		•		۰	•			•		•	
•		•		٠	• •			•		٠	
		_								•	
	FWDout 5412W 5441W - - - -	FWDout       REFL         5412W       35W         5441W       140W         -       -	FWDout REFL V1   5412W 35W 37.5V   5441W 140W 44V <td>FWDout       REFL       V1       V2         5412W       35W       37.5V       37.5V         5441W       140W       44V       43.9V         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         SYSTEM ALARM       ALARM TEMPERATURE       -       -         -       -       -       -       -         -       -       -       -       -       -         -</td> <td>FWDout REFL V1 V2 V3   5412W 35W 37.5V 37.5V 37.5V   5441W 140W 44V 43.9V 43.9V   1   5441W 140W 44V 43.9V 43.9V     5441W 140W 44V 43.9V 43.9V     SYSTEMALARM ALARM TEMPERATURE ALARM REF   <t< td=""><td>FWDout       REFL       V1       V2       V3       I1         5412W       35W       37.5V       37.5V       37.5V       29.1A         5441W       140W       44V       43.9V       43.9V       22A         .       .       .       .       .       .       .         5441W       140W       44V       43.9V       43.9V       22A       .         .</td><td>Amplifiers analogic measures, alarms and varnings are show         - AMPLIFIERS MEASURES         FWDout       REFL       V1       V2       V3       H1       I2         5412W       35W       37.5V       37.5V       37.5V       29.1A       29.5A         5441W       140W       44V       43.9V       43.9V       22A       23.7A         5441W       140W       44V       43.9V       43.9V       2A       24.7A         5441W       140W       44V       43.9V       43.9V       2A       24.7A         5441W       140W       44V       43.9V       43.9V       44.7A       44.7A         5441W       410W       44.7V       43.9V       44.7A       44.7A       44.7A         5441W       410W       44.7V       44.7A       44.7A       44.7A       44.7A       44.7A       44.7A         6       6</td><td>Amplifiers analogic measures, start warmings are showed by the part of the part of</td><td>Amplifiers analogic measures, alarms and warnings are showed in this page.         - AMPLIFIERS WEASURES.         FWDout       REFL       V1       V2       V3       11       12       13       14         S4120V       35W       37.5V       37.5V       37.5V       29.5A       29.5A       27.1A       29.5A         S4410V       140W       44V       43.9V       43.9V       22A       23.7A       22.8A       24.3A         S4120V   </td><td>Amplifies unable to reasonable to the source of the sour</td><td>Amplifiers analogic measures, atamisma are showed in this pase.         FWDourt       REFL       VI       VZ       V3       H       IZ       IS       H       IS       B6         5412W       35W       37.5V       37.5V       37.5V       29.1A       29.5A       27.1A       29.5A       30.3A       29.4A         5412W       140W       43.9V       43.9V       22.4       23.7A       22.8A       24.3A       23.4A       22.9A         5412W       140W       43.9V       43.9V       20.4       23.7A       22.8A       24.3A       23.4A       22.9A         5412W       140W       43.9V       43.9V       20.4       25.4       24.3A       23.4A       22.9A         5412W       140W       43.9V       43.9V       20.4       25.4       24.3A       23.4A       22.9A         5412W       140       140       140       140.9V       140.9V<!--</td--></td></t<></td>	FWDout       REFL       V1       V2         5412W       35W       37.5V       37.5V         5441W       140W       44V       43.9V         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         SYSTEM ALARM       ALARM TEMPERATURE       -       -         -       -       -       -       -         -       -       -       -       -       -         -	FWDout REFL V1 V2 V3   5412W 35W 37.5V 37.5V 37.5V   5441W 140W 44V 43.9V 43.9V   1   5441W 140W 44V 43.9V 43.9V     5441W 140W 44V 43.9V 43.9V     SYSTEMALARM ALARM TEMPERATURE ALARM REF <t< td=""><td>FWDout       REFL       V1       V2       V3       I1         5412W       35W       37.5V       37.5V       37.5V       29.1A         5441W       140W       44V       43.9V       43.9V       22A         .       .       .       .       .       .       .         5441W       140W       44V       43.9V       43.9V       22A       .         .</td><td>Amplifiers analogic measures, alarms and varnings are show         - AMPLIFIERS MEASURES         FWDout       REFL       V1       V2       V3       H1       I2         5412W       35W       37.5V       37.5V       37.5V       29.1A       29.5A         5441W       140W       44V       43.9V       43.9V       22A       23.7A         5441W       140W       44V       43.9V       43.9V       2A       24.7A         5441W       140W       44V       43.9V       43.9V       2A       24.7A         5441W       140W       44V       43.9V       43.9V       44.7A       44.7A         5441W       410W       44.7V       43.9V       44.7A       44.7A       44.7A         5441W       410W       44.7V       44.7A       44.7A       44.7A       44.7A       44.7A       44.7A         6       6</td><td>Amplifiers analogic measures, start warmings are showed by the part of the part of</td><td>Amplifiers analogic measures, alarms and warnings are showed in this page.         - AMPLIFIERS WEASURES.         FWDout       REFL       V1       V2       V3       11       12       13       14         S4120V       35W       37.5V       37.5V       37.5V       29.5A       29.5A       27.1A       29.5A         S4410V       140W       44V       43.9V       43.9V       22A       23.7A       22.8A       24.3A         S4120V   </td><td>Amplifies unable to reasonable to the source of the sour</td><td>Amplifiers analogic measures, atamisma are showed in this pase.         FWDourt       REFL       VI       VZ       V3       H       IZ       IS       H       IS       B6         5412W       35W       37.5V       37.5V       37.5V       29.1A       29.5A       27.1A       29.5A       30.3A       29.4A         5412W       140W       43.9V       43.9V       22.4       23.7A       22.8A       24.3A       23.4A       22.9A         5412W       140W       43.9V       43.9V       20.4       23.7A       22.8A       24.3A       23.4A       22.9A         5412W       140W       43.9V       43.9V       20.4       25.4       24.3A       23.4A       22.9A         5412W       140W       43.9V       43.9V       20.4       25.4       24.3A       23.4A       22.9A         5412W       140       140       140       140.9V       140.9V<!--</td--></td></t<>	FWDout       REFL       V1       V2       V3       I1         5412W       35W       37.5V       37.5V       37.5V       29.1A         5441W       140W       44V       43.9V       43.9V       22A         .       .       .       .       .       .       .         5441W       140W       44V       43.9V       43.9V       22A       .         .	Amplifiers analogic measures, alarms and varnings are show         - AMPLIFIERS MEASURES         FWDout       REFL       V1       V2       V3       H1       I2         5412W       35W       37.5V       37.5V       37.5V       29.1A       29.5A         5441W       140W       44V       43.9V       43.9V       22A       23.7A         5441W       140W       44V       43.9V       43.9V       2A       24.7A         5441W       140W       44V       43.9V       43.9V       2A       24.7A         5441W       140W       44V       43.9V       43.9V       44.7A       44.7A         5441W       410W       44.7V       43.9V       44.7A       44.7A       44.7A         5441W       410W       44.7V       44.7A       44.7A       44.7A       44.7A       44.7A       44.7A         6       6	Amplifiers analogic measures, start warmings are showed by the part of	Amplifiers analogic measures, alarms and warnings are showed in this page.         - AMPLIFIERS WEASURES.         FWDout       REFL       V1       V2       V3       11       12       13       14         S4120V       35W       37.5V       37.5V       37.5V       29.5A       29.5A       27.1A       29.5A         S4410V       140W       44V       43.9V       43.9V       22A       23.7A       22.8A       24.3A         S4120V	Amplifies unable to reasonable to the source of the sour	Amplifiers analogic measures, atamisma are showed in this pase.         FWDourt       REFL       VI       VZ       V3       H       IZ       IS       H       IS       B6         5412W       35W       37.5V       37.5V       37.5V       29.1A       29.5A       27.1A       29.5A       30.3A       29.4A         5412W       140W       43.9V       43.9V       22.4       23.7A       22.8A       24.3A       23.4A       22.9A         5412W       140W       43.9V       43.9V       20.4       23.7A       22.8A       24.3A       23.4A       22.9A         5412W       140W       43.9V       43.9V       20.4       25.4       24.3A       23.4A       22.9A         5412W       140W       43.9V       43.9V       20.4       25.4       24.3A       23.4A       22.9A         5412W       140       140       140       140.9V       140.9V </td













#### Hot plug modules

All PFG NEXT transmitters over 5 kW can be equipped optionally with the hot-plug system to instantly extract the amplifier modules with transmitter in full power.

### High efficiency cooling system

The PFG series cooling system limits the heat-sink temperature rise to only about 10°C above ambient temperature. This guarantees the properly functioning even at high temperatures and in sites with extreme climate conditions.

#### Air cooling

The oversized air-cooling system widely extends transistor life. The amplifier modules are equipped with externally mounted redundant fans to allow easy and fast cleaning, or eventual replacement, without opening or removing any module and without interrupting the transmitter operation.



#### PFG liquid cooling (available option over 5kW)

Substantial advantages of our liquid cooling technology compared to air cooling are:

- Properly working even with hard climate conditions.
- Dramatically reduction of air conditioning needing.
- Correct functioning in dusty environment even with high humidity or salinity.
- Very low acoustic noise.
- Low heat radiation into the environment.
- Longer life for transistors and active elements due to colder continuous operation.

#### AAD Technology

Prevents corrosion from air moisture and increases reliability.

- Components are made in anticorodal aluminum.
- Air is ducted to avoid contact with electronic parts.
- All electronic boards and cablings are tropicalized with a special resin to protect the circuits against salt air.









#### Hot swappable power supply units

The PFG NEXT transmitter series are characterized by the presence of hot swappable power supply units for a simplified serviceability and maintenance.

Their toolless and instant installation from front panel let the PFG NEXT transmitters to be ideal for critical environment systems where no down time can be tolerated.

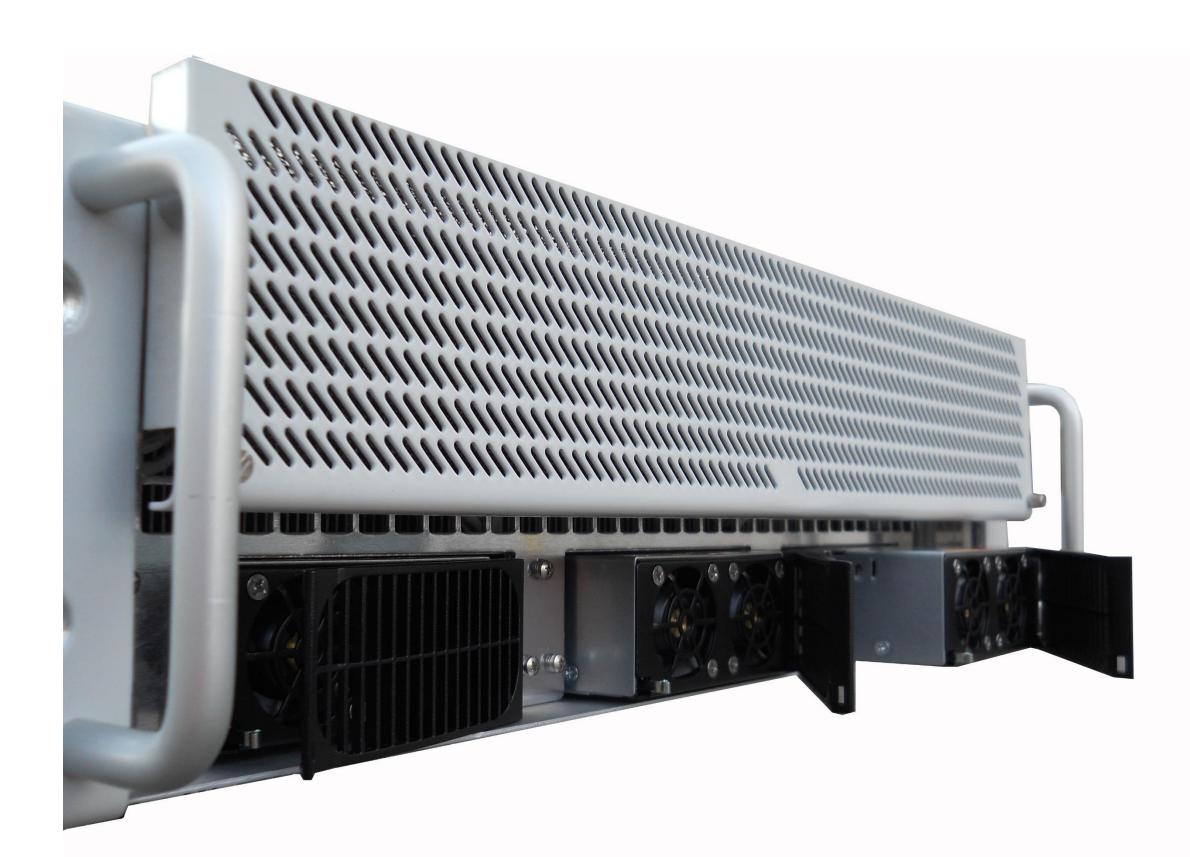
#### Automatic Current Sharing (ACS)

A software controlled automatic current balancing system (ACS) is present on each unit to grant a perfect load distribution and so best power supply operating conditions.

In case of multiple power supplies installed in the transmitter, the system always works balanced without any current overload even in case of failure of one power supply.

# TECHNICAL FEATURES







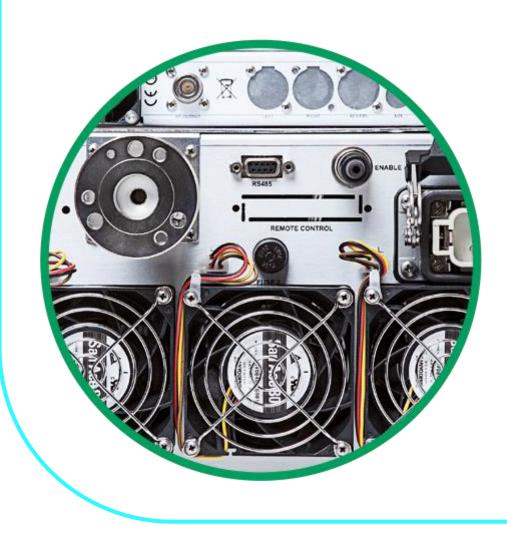
# HIGH EFFICIENCY – EASY MAINTENANCE

## Efficiency Enhancement

Latest generation LD-MOS devices increase DC to RF efficiency up to 85%, with a drastic reduction of energy consumption.

Hot-plug fans: 5 minutes maintenance time, no need to open or switch off the unit.





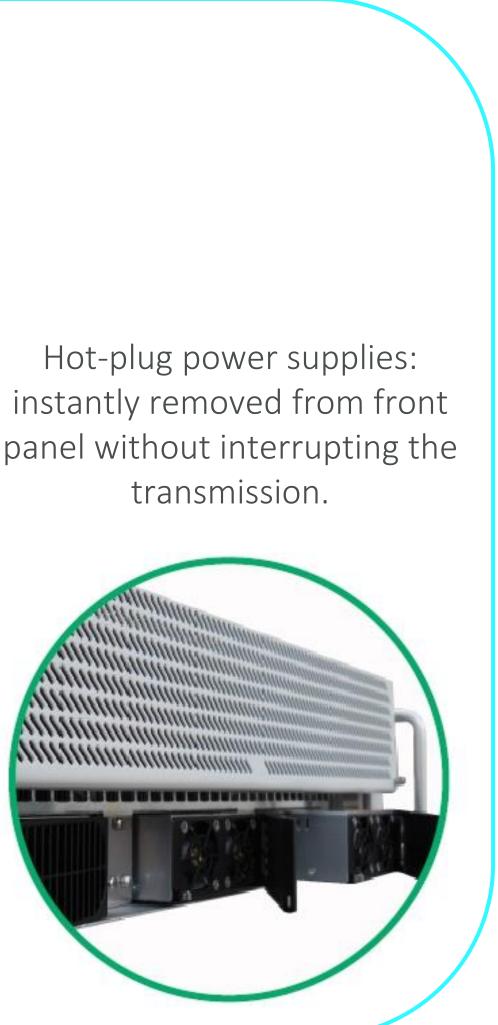


## Easy maintenance, without off-air

All PFG transmitters over 5kW can be equipped optionally with the hot-plug system to instantly extract the amplifier modules with transmitter in full power.

transmission.







DIGITAL BROADCAST

### www.dbbroadcast.com



www.screen.it