

A close-up photograph of two metal connectors on a white device panel. The connectors are cylindrical with threaded ends. The panel has some blue markings and a large blue logo partially visible in the background. A blue banner is overlaid at the bottom of the image.

# Broadcast Solutions

DVB-T/T2, DAB/DMB, ISDB-T/T<sub>B</sub>, ATSC & Analog TV

**PLISCH**

THE TRANSMITTER COMPANY

Plisch (transmitter company) –  
technical information about the transmitters

# Historical Plisch Products

1960



Panorama Empfänger

1970



FME488

1990

FMS100



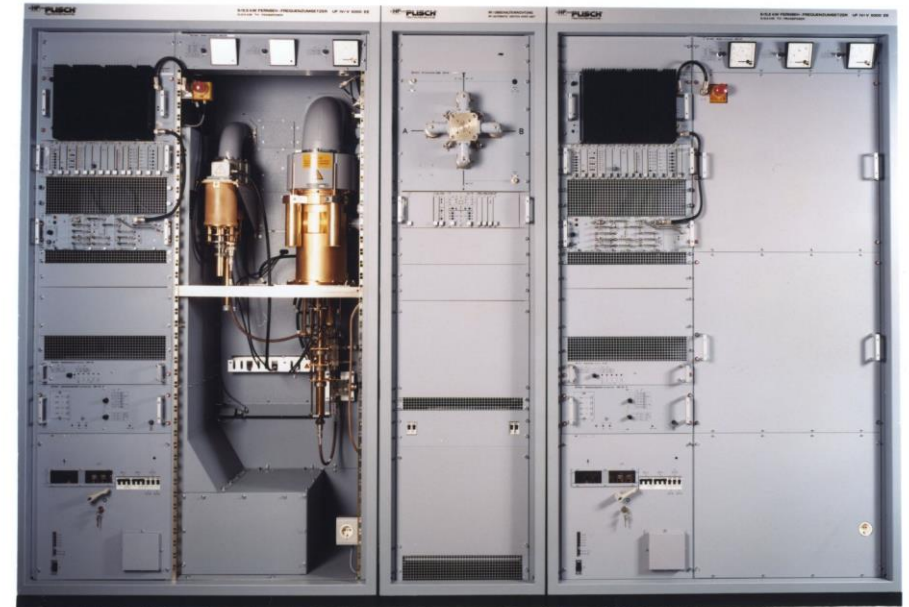
# Historical Plisch Products

1970



Transmitter VHF 100W (right) / UHF 200W (left)

1980



Transmitter UHF 2x 5kW

# Historical Plisch Products

1990



Transmitter UHF 5kW

2000



Transmitter UHF 10kW

2000



Transmitter DVB-T UHF 2,5kW

# Leader in Innovative Broadcasting

- Over 60 years of experience in broadcasting
- Over 40 years of experience in transmitters
- Over 25 years of experience in digital transmission with DAB transmitters
- 20 years of experience in digital terrestrial television
- Engineered and manufactured in Germany, ISO 9001 & ISO 14001 certified

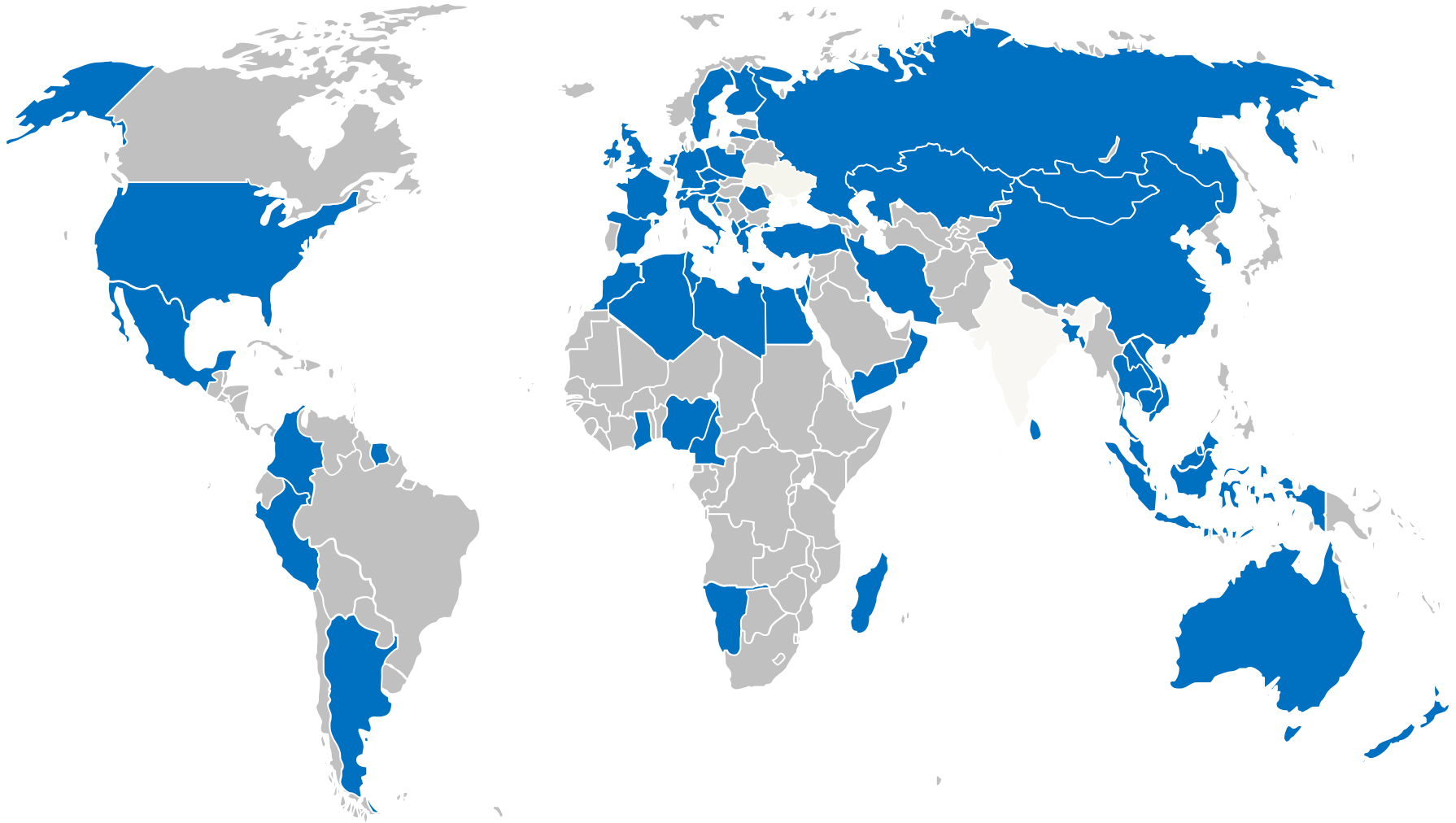
# Company Facts

## Plisch is ...

- ... a leading manufacturer of broadcasting equipment.
- ... a specialist in terrestrial video and digital radio transmitters:  
DVB-T/T2, DAB/DMB, ISDB-T/TB, ATSC & Analog TV.
- ... renowned for building reliable products with an established reputation for offering excellent service and support.
- ... operating world wide.



# Customers Worldwide



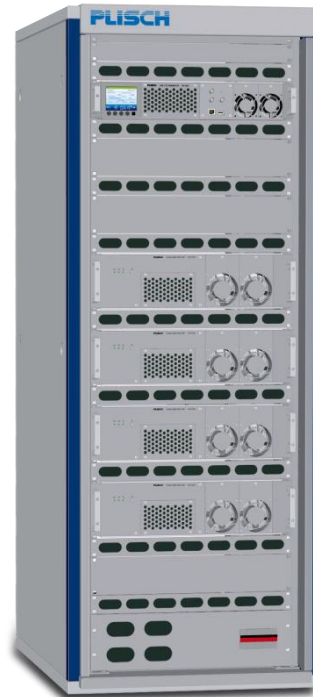


# Series 4000

Low Power



Medium Power



High Power Air



High Power Liquide



# Low Power Transmitter

UHF Band IV/V  
VHF Band III

with Doherty

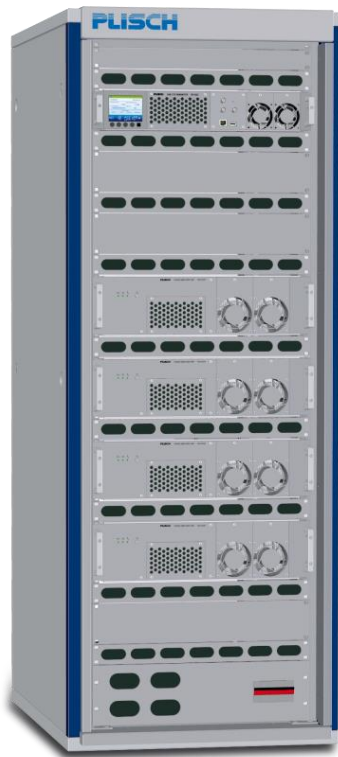


- Highly compact design and modular structure
- Highest Efficiency with Doherty
- Enhanced adaptive pre-correction
- ASI/IP seamless switching
- Quality monitoring of MER and shoulder attenuation
- Up to 600W (UHF/Doherty)
- Booster Concept

# Medium Power Transmitter

with Doherty

UHF Band IV/V  
VHF Band III



- Highest Efficiency with Doherty
- Integrated cooling inside the power amplifier
- Enhanced adaptive pre-correction
- ETI/ASI/IP seamless switching
- Quality monitoring of MER and shoulder attenuation
- Simple installation, service and maintenance

# Ducted Air Cooled Transmitter

with Doherty

UHF Band IV/V  
VHF Band III



- Flexible air in- and outlet design save power costs in the transmitter and also at the station
- Highest Efficiency with Doherty
- Highly compact design and modular structure
- Enhanced adaptive pre-correction
- ETI/ASI/IP seamless switching
- Quality monitoring of MER and shoulder attenuation
- Up to 3000W /Rack

# Liquid Cooled Transmitter

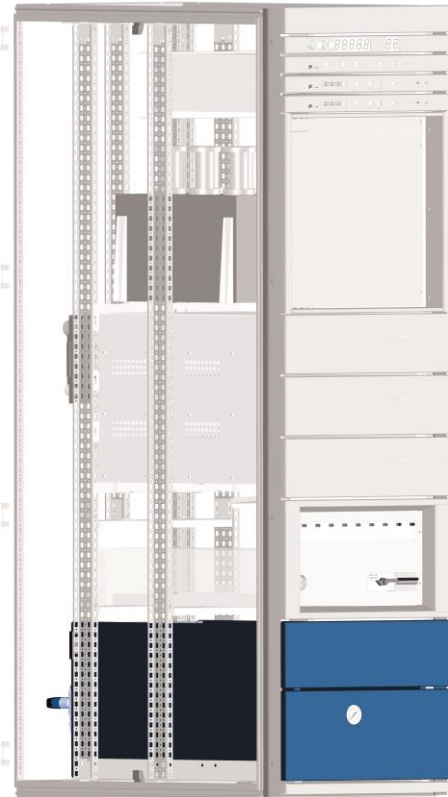
with Doherty

UHF Band IV/V  
VHF Band III



- Highly compact integrated liquid cooling unit
- Highest Efficiency with Doherty
- Highly compact design and modular structure
- Enhanced adaptive pre-correction
- ETI/ASI/IP seamless switching
- Quality monitoring of MER and shoulder attenuation
- Up to 1150W (Doherty) / 1300W (A/B) each amplifier

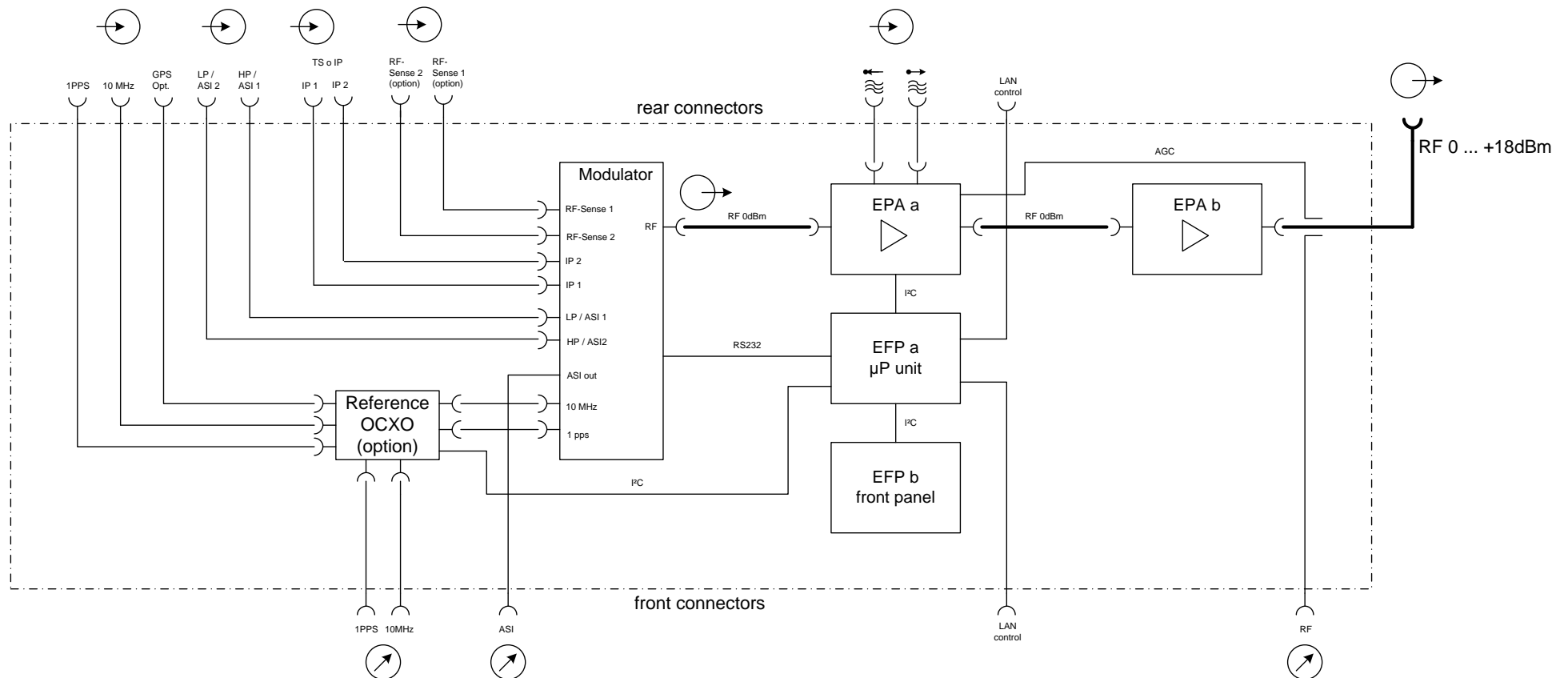
# Integrated Liquid Cooling Unit LCU 4101



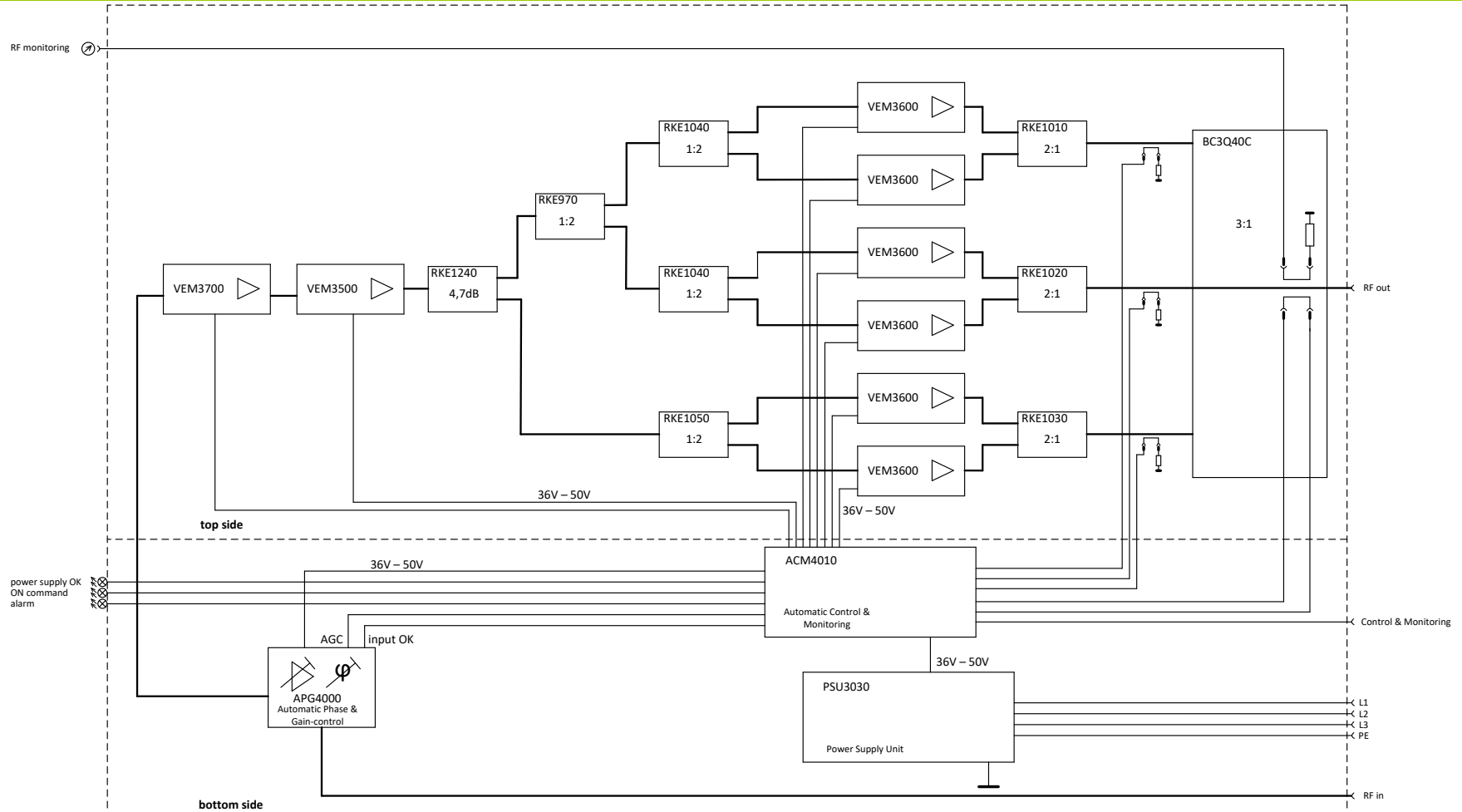
- Integrated in the transmitter rack
- Full redundant solution
- Easy to maintain
- Pumps changeable during transmitter operation



# Block Diagram Exciter

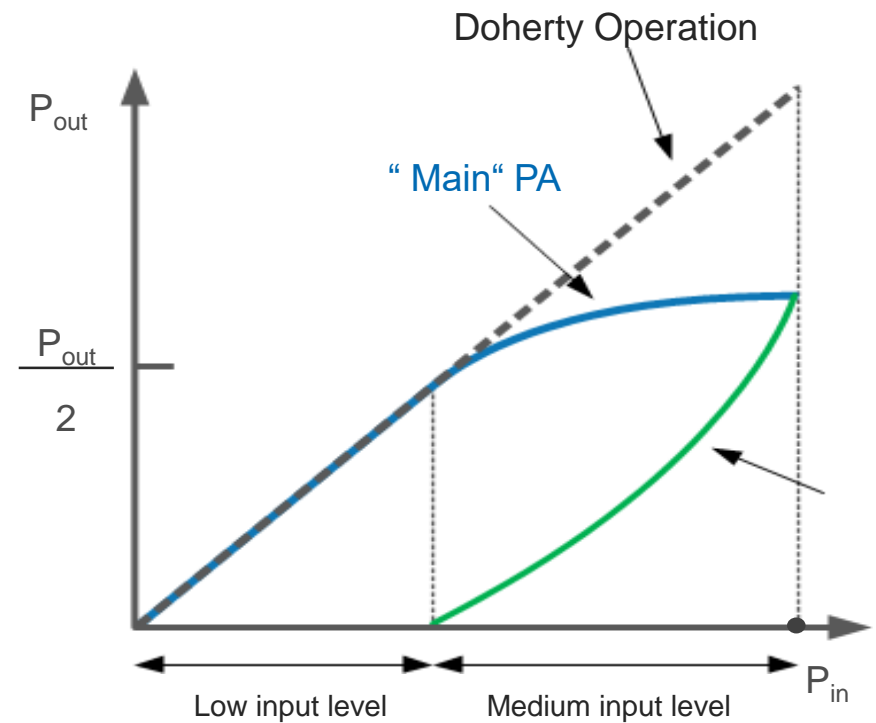
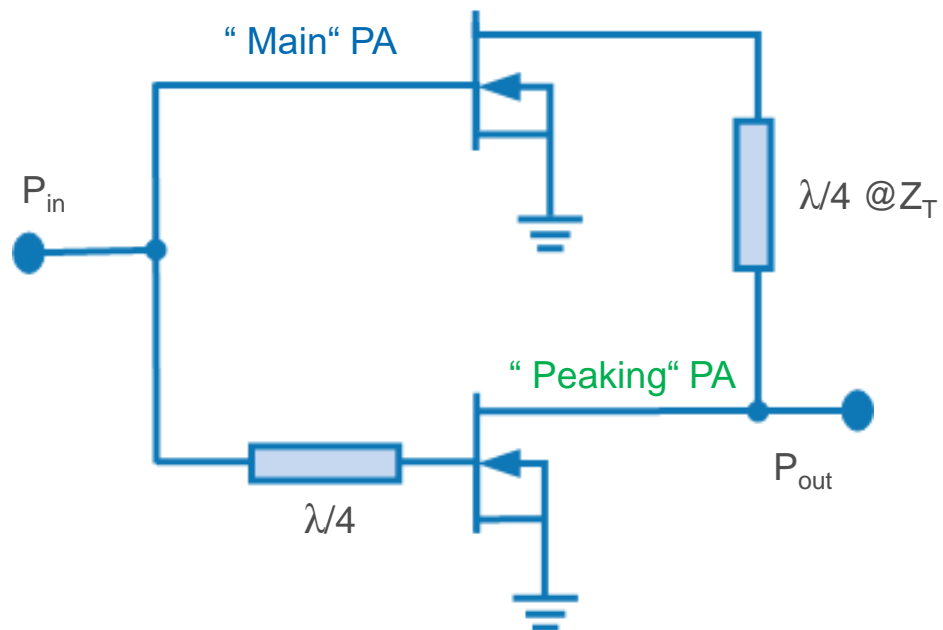


# Block Diagram Amplifier



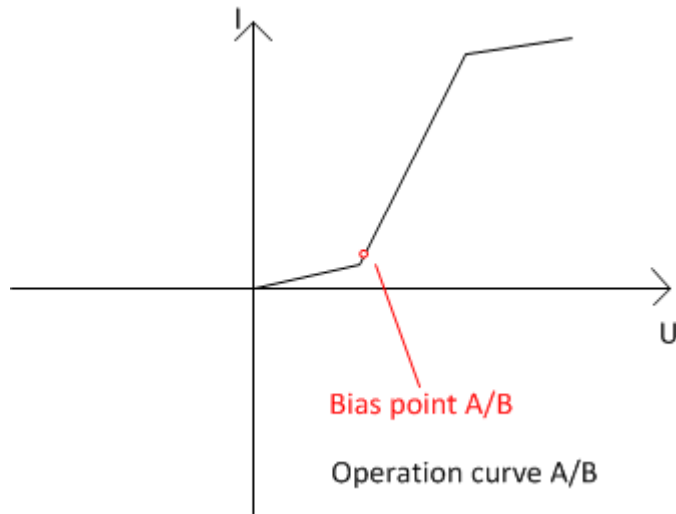


# Saving Energy – The Doherty

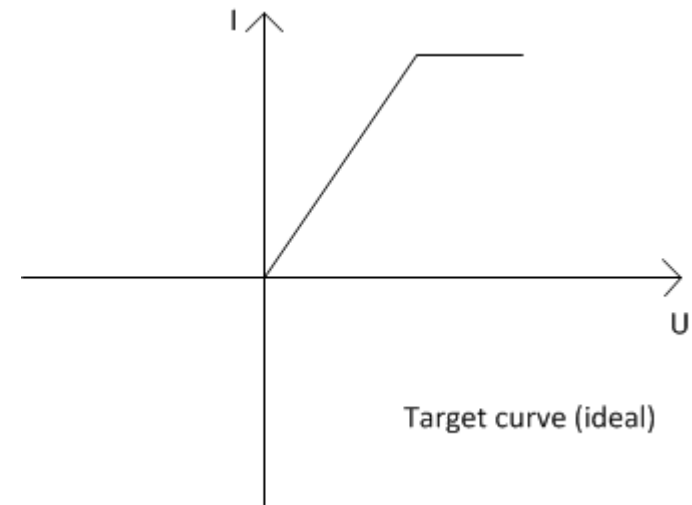


# Saving Energy - The Precorretor

Class AB  
Ideal



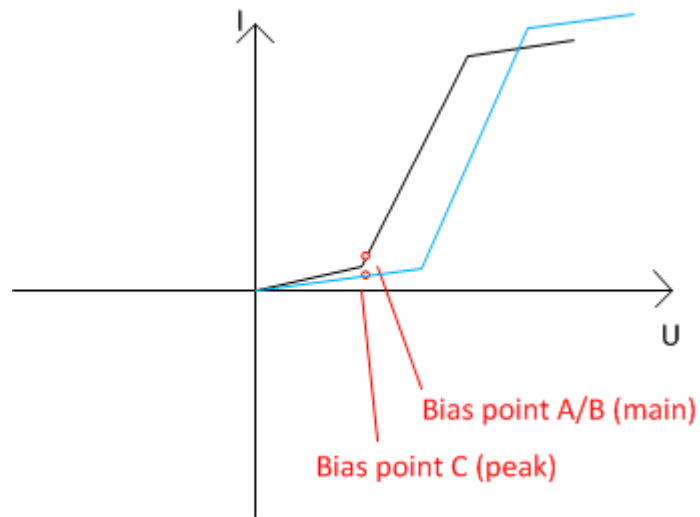
Transistor curve A/B



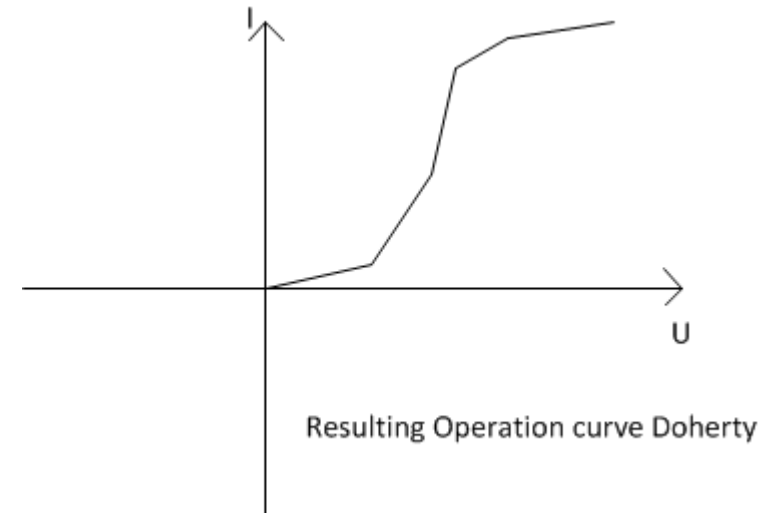
Transistor curve (ideal)

# Saving Energy - The Precorretor

Doherty



Transistor curve Doherty








Resulting Transistor curve Doherty

# Saving Energy - Strategy

- Doherty Technology for low power consumption of PA
- High Performance Precorrector – for highest output power
- Reducing Transistor voltage if nominal output power is not needed

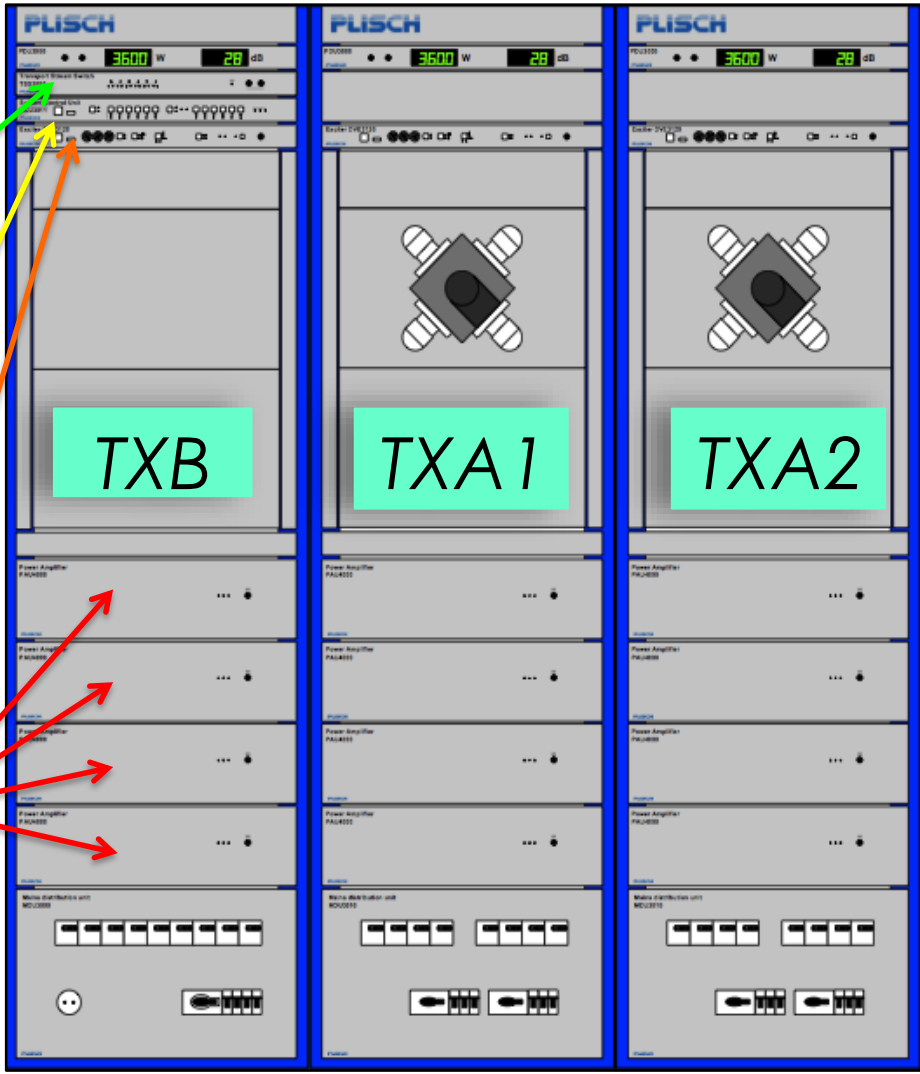
# Reserve Configurations

-  Dual drive
-  Passive Reserve
-  Active reserve
-  N+1
-  N+1 with Dual Drive

# Typical CONFIGURATION

**N+1  
CONFIGURATION**

- TRANSPORT  
STREAM  
SWITCH
- SYSTEM  
CONTROL  
UNIT
- EXCITER
- Power  
Amplifier



# Reserve Configurations

## N+1 System Overview

The screenshot displays a web interface for the Smilde SCU3011 system. The browser address bar shows the URL `192.168.202.1/scu_np1.php?section=stat&PHPSESSID=t2hmju5t0vme4eor54rdnc2j1`. The interface includes a navigation menu on the left with sections for System Control Unit, Status, Settings, System, Administration, and Logout. The main content area shows a diagram of the transmitter system with the following specifications:

| Transmitter | Power (W) | Gain (dB) |
|-------------|-----------|-----------|
| A5          | 2350W     | 29 dB     |
| A4          | 2100W     | 28 dB     |
| A3          | 1700W     | 29 dB     |
| A2          | 2450W     | 25 dB     |
| A1          | 2400W     | 23 dB     |
| B           | 2450W     | 29 dB     |

Each transmitter is connected to a switch unit (labeled 1 and 2) which is controlled by a central unit (labeled P2). The interface also shows various status indicators and control options for each transmitter, including Preselection (Auto/Manual) and Selection Mode.



**THANK YOU VERY MUCH  
FOR YOUR KIND ATTENTION**