

HF SSB/ISB Linear Amplifiers



LA76210 LA76150

**1000 W or 500 W
continuous average power**

1.5-30 MHz

Fast tuning

High speed data transmission

Full remote control

**For civil and military
applications**

Dansk Radio AS

a division of TERMA Elektronik AS



Full solid state 500W and 1000W PEP/Average Linear Amplifiers LA76150 and LA76210

Dansk Radio AS meet military, civil and governmental requirements for high grade HF equipment that can be used for extensive communication 24 hours a day, 7 days a week with continuous output power even under demanding environmental conditions.

- Combined with the Synthesized Exciter SE4010 the LA76150/210 Linear Amplifiers provide excellent 500W/1000W transmitters that cover the frequencies 1.5-30 MHz in steps of 10Hz.
- Advanced and yet easy to operate and maintain, the transmitters offer voice, morse, telex, data and fax communication in both single and independent sideband.
- All transmitter functions can be remotely controlled from a computer or from the dedicated remote control panel TC4010.
- With the addition of the digital antenna tuner TU4015, a whip or long-wire antenna will automatically be matched for optimal power output.

TYPICAL APPLICATIONS INCLUDE:

- Military networks
- Embassy networks
- Post & Telegraph networks
- Ground to air communication
- Rural communication
- Meteorological networks
- Shore/ship coast stations
- Police networks

Continuous SWR computation for maximum output protection

As shown in the SWR graph the Linear Amplifiers deliver full output power for SWR up to 1.5. For SWR 2:1 the amplifiers deliver full output power -1dB which means there is ample power even with degraded antenna matching. The Power Amplifier output withstands any deviation from the ideal 50 ohm antenna impedance and is fully protected.

The SWR is computed by constantly monitoring the forward and reflected power and the circuit effectively protects the transmitter against any antenna mismatch including short and open circuit. For increased SWR the output power reduction is shown in the following graph:



Synthesizer SE 4010 synthesized exciter. Frequency range 1.5 to 30 MHz. Ask for separate leaflet.

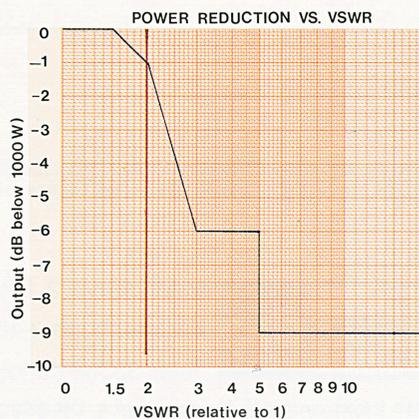
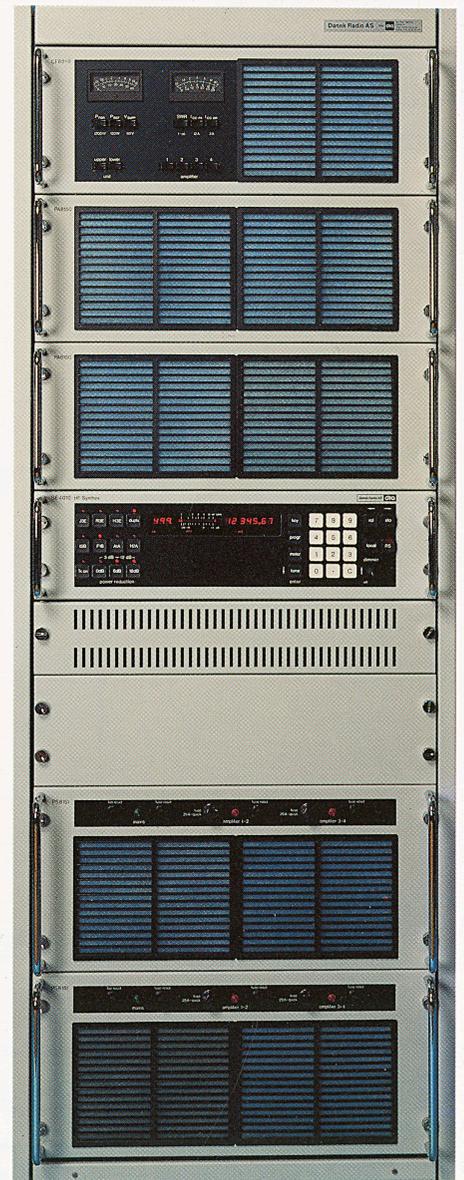
Configuration:

**LINEAR AMPLIFIER
LA76150 - 500W PEP/AVG.**
One power supply unit PS6150
1-phase or PS6151 3-phase.
One 500W power amplifier unit
PA6150.
One combination and filter unit
CF6150.

Configuration:

**LINEAR AMPLIFIER
LA76210 - 1000W PEP/AVG**
Two power supply units PS 6150
1-phase or PS6151 3-phase.
Two 500W power amplifier units
PA 6150.
One combination and filter unit
CF6210.

Linear Amplifier LA 76210



Technical Specifications LA76150 and LA76210 Linear Amplifiers with SE4010 Exciter

Frequency Range

1.5-30 MHz in 10 Hz increments.

RF Input Power

1W PEP/average into 50 ohm unbalanced.

Output Power

LA76150: 500W \pm 1dB into 50 ohm unbalanced with SWR up to 1.5:1

LA76210: 1kW \pm 1dB into 50 ohm unbalanced with SWR up to 1.5:1

Duty cycle

100%

Linearity

Intermodulation distortion better than 35dB/PEP at max. output power, typically 41dB/PEP.

Types of Emission

H3E, R3E, J3E (USB and LSB), B8E, B9W, H2A, A1A, F1B.

Output Power Levels

0dB, -3dB, -6dB, -12dB, -18dB.

Protection

Automatic level control of drive level.
No damage to amplifier for open or short circuit or any antenna impedance.

Hum and Noise

Less than -45dB/PEP in 3kHz BW.

Remote Control

Full remote control capability from TC4010 control unit on RS232, RS422 or RS485 data bus.

Power Supply

PS6150 single phase:

200, 220, 230, 240, 254 VAC, \pm 10%, 50/60Hz

Optional: 100, 110, 115, 120, 127 VAC, \pm 10%

PS6151 three phase:

350, 380, 400, 415, 440 VAC, \pm 10%, 50/60Hz

Optional: 200, 220, 230, 240, 254 VAC, \pm 10%

Power Consumption

LA76150: max. 2,2kW cos phi 0.9

LA76210: max. 4,2KW cos phi 0.9

Cooling System

Forced air cooling with blower and temperature control in all individual drawers.

Environmental conditions

Operating: -15°C to +55°C

Storage: -40°C to +70°C

Rel. humidity: 95%/40°C

Dimensions	LA76150	LA76210
Height:	1005mm	1410mm
Width:	570mm	570mm
Depth:	700mm	700mm
Weight:	250kg	350kg

Nato Stock Numbers

LA76150:

Linear Amplifier 500 W, 1-phase
5820-22-285-0065

LA76210:

Linear Amplifier 1kW, 1-phase
5895-22-285-0071

LA76210:

Linear Amplifier 1kW, 3-phase
5895-22-285-0070

SE4010:

HF Exciter
5820-22-285-0066

TC4010:

Remote Control of SE4010 Exciter
5895-22-285-0069

TU4015:

Digital Antenna Tuner
5820-22-2-85-0067

AS4010:

Electronic Antenna Switch
5895-22-285-0073

IC4010:

Intelligent Controller
5895-22-285-0336

Our representative in your area



As our products are subject to current improvements the equipment may vary in details from specifications and descriptions given herein. This publication gives only a general description of the product(s) and shall not form part of any contract.



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