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SPAUN electronic

Technical Instructions

for the System launch amplifiers SBK 5502 NF and SBK 5503 NF and the cascadable multiswitches DMK 5562 F and DMK 5582 F

Important: Please observe the following instructions.



Installation is only permitted in dry rooms and upon a non-combustible surface.

Ensure that there is adequate air circulation.

The permissible ambient temperature range is:

-20°C ... +35°C (-4° F to +95° F).

Wall mounting only with power supply housing at left or right side of the device (horizontal mounting).



Certification



The components fulfills the more stringent screening requirements according to amendment 1 of EN 50083-2, quality grade A.



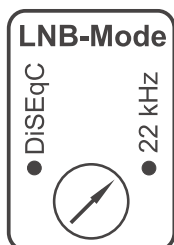
All components are equipped with an earthing terminal for connecting to the main potential equalization.

Specifications and design are subject to change due to our policy of continual technical improvement.

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Setting instructions:

Power Supply to LNB



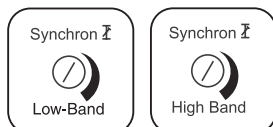
Supply modes:

DiSEqC: for Dishpro[®] LNB's

22 kHz: for DirecTV[®]

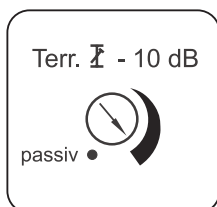
The LNB remote current must not exceed a total of 0,6 A and the maximum permissible current per socket must not exceed 0,4 A for the SBK 5502 NF and 0,5 A for the SBK 5503 NF.

Input Levels



The SBK 5503 NF has a synchronous level attenuator in order to match the different levels of the various bands (low band, high band). There is one controller per band. The input levels can be reduced by 0 ... 10 dB.

The SBK 5502 NF has a separate level attenuator for each SAT-IF-input.



The launch amplifiers are equipped with an adjustable attenuator in order to adjust the level of the terrestrial or CATV signals. The input levels can be reduced in active mode by 0 ... 10 dB. The signals are not amplified in the "passive" setting.

Please take note of the "Terrestrial" section of the instructions.

SAT-IF distribution:

The maximum input level is typically -25,75 dBm for the SBK 5503 NF and -30,75 dBm for the SBK 5502 NF with, in each case, the adjustable attenuator turned on and full transponder load. The IF signals are to be feed into the launch amplifiers and the multiswitches in accordance with the labeling so that the logical assignment of the IF levels matches the switching criteria.

Maximum output levels:

SBK 5503 NF

Bereich / Range	dB μ V / 60 dB / EN 50083-3					dB μ V / 1R8-15	
	IMA ₃	IMA ₂	CTB	CSO	CENELEC-Raster	BK-Raster 36TV/24FM CTB/72dB	CSO/69dB
47-450 MHz	115	115	113	124	A: 19 K	105	112
47-606 MHz	115	115	110	116	C: 29 K	—	—
47-862 MHz	115	115	106	106	E: 42 K	—	—
950-2200 MHz	115	35 dB IMA ₃ / EN 50083-3					
950-2200 MHz	115	35 dB IMA ₂ / EN 50083-3					

SBK 5502 NF

Bereich / Range	dB μ V / 60 dB / EN 50083-3					dB μ V / 1R8-15	
	IMA ₃	IMA ₂	CTB	CSO	CENELEC-Raster	BK-Raster 36TV/24FM CTB/72dB	CSO/69dB
47-450 MHz	110	110	106	110	A: 19 K	98	100
47-606 MHz	110	110	102	104	C: 29 K	—	—
47-862 MHz	109	109	98	99	E: 42 K	—	—
950-2200 MHz	110	35 dB IMA ₃ / EN 50083-3					
950-2200 MHz	110	35 dB IMA ₂ / EN 50083-3					

Compatibility

The SBK 5502 NF and SBK 5503 NF launch amplifiers are downwardly compatible, they can replace all earlier models.

Power Supply

The launch amplifiers have internal, energy-saving, switched mode power supplies.

U~: 100 - 240 V / 50 - 60 Hz.

Power consumption: (with max. remote current)

		SBK 5502 NF	SBK 5503 NF
SAT stand-by	terrestrial passive	2,5 W	1,5 W
SAT active	terrestrial passive	32 W	46 W
SAT stand-by	terrestrial active	6 W	6 W
SAT active	terrestrial active	36 W	50 W

Stand-by function:

The stand-by signaling takes place over trunkline 1. The launch amplifier is activated if the trunkline output remains open (internal pull-up) or if it is isolated by a DC blocker (DCF 500). A directly connected, cascadable multiswitch DMK 55X2 F or a network repeater amplifier first brings the launch amplifier into stand-by mode. If a receiver sends a remote voltage to a multiswitch then this is transmitted on trunkline 1 to the launch amplifier, which is thereby activated.

Repeater amplifier supply:

The SBK 5502 / SBK 5503 NF launch amplifiers provide a continuous remote voltage at trunkline output 0 for supplying a network repeater amplifier. SAT-IF trunkline outputs 2, 3, 4 then only provide a remote voltage when the launch amplifier is not in stand-by mode. The maximum permissible total current delivery is 650 mA for the SBK 5502 NF and 1 A for the SBK 5503 NF, however there is a maximum of 500 mA per socket in each case. The SBK 5503 NF can feed a NVF 5522 SR or NVF 5523 SR repeater amplifier, the SBK 5502 NF may only be combined with the NVF 5522 SR.

Terrestrial:

The terrestrial input has an adjustable attenuator.

The amplifier unit (47...862 MHz) is made CATV compatible by a push-pull final stage.

The terrestrial signal can also be passed through passively. To do this, the adjustable attenuator must be turned anticlockwise as far as it will go. The terrestrial amplifier is then switched off and the through loss is 4 dB.

At the same time, the frequency range expands to 5...862 MHz; this means that the launch amplifiers are return path compatible.

It is not recommended to connect aerials directly. Selective devices should be used to avoid interference., e.g. FMP 30, VFM... F or MBV... PF.



Cascadable multiswitches: DMK 5562 F and DMK 5582 F

These modules are accessory components for the launch amplifiers for constructing a satellite IF distribution system. They support the terrestrial signal distribution and are fully return path compatible.

In the case of central distribution, the components can be connected to one another with ZSV 2 S push-on connectors, or they may also be installed separated from one another as "storey distributors".

- 22 kHz (= for DirecTV[®])
- Mode selector
- DiSEqC (= for Dishpro[®] LNB's)

The trunklines of the cascade have to be terminated with DC-isolated resistors (ZFR 75 DC). These DC isolated resistors are supplied with the launch amplifiers.

As a rule, about 3 cascadable multiswitches can be connected one behind the other. A network repeater amplifier (e.g. type NVF 55.. SR) should be used in order to subsequently install additional distributors. The cascade components have a current consumption of 40 mA per connected receiver.

The stand-by function of the launch amplifier is supported by the cascadable multiswitches.

All five trunklines can transmit remote feeding currents up to 2 A.

Technical data

Type designation	DMK 5562 F	DMK 5582 F
Order no.	842394	842395
Frequency range	1x 5...862 MHz / 4x 950 ... 2200 MHz	
Number of subscribers	6	8
Through loss, SAT:	2...4,5 dB	2...4,5 dB
Through loss, Terr.:	5 dB	6 dB
Tap loss, SAT:	18...15 dB	
Tap loss, Terr.:	20...18 dB	
Switching Isolation	26 dB	
Isolation:		
- Trunkline/Trunkline	> 30 dB	
- Tap/Tap	> 26 dB	
Current requirement per receiver	max. 35 mA	
Dimensions	W= 140 mm H = 153 mm D = 38 mm	

*The specialist for
SAT IF distribution*

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