

SPAUN SMS 5808 NF

Extremely low noise and eco-friendly multiswitch

When it came, it did not look any special. The multiswitch has only 4 satellite inputs (i.e. 1 quattro LNB) and 1 terrestrial and 8 receiver outputs. Just something for one or 2 families if they are comfortable with just one satellite. Of course it looked very professional as all SPAUN

switches and had the features we used to expect from them: possibility to connect either quattro, twin or quad LNB's or the standby mode. However as soon as we started the measurements we become stunned. Its noise performance was unbelievably perfect!

But let's start from the beginning. We checked the input power to confirm that this is really an environment friendly device. When all connected receivers are in standby mode,

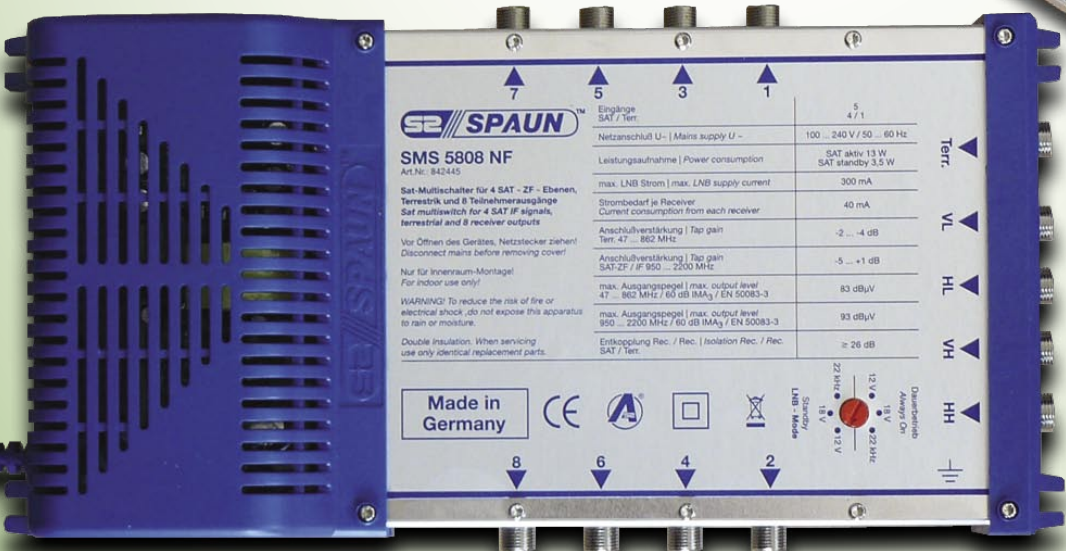
the multiswitch switches off the LNB (or LNB's) and reduces the power down to 3.5 W. We measured that the supply current in standby is 33 mA r.m.s. It means that it consumes 7.6

VA. If we take into account that in the operate mode the power consumption can be even 13 W

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the standby mode makes sense. It saves us almost 10 W.

OK, so the next step was to select the transponders to use as the test input. They are shown in table 1. As you can see, we chose 3 transponders for every satellite input (VL, HL, VH and HH) located more or less at the edges and in the centers of the subbands. Measuring 12 transponders on 8 outputs takes time but if the multiswitch has any weak point, it can not slip unnoticed. So what about the tap gain? According to the specification it

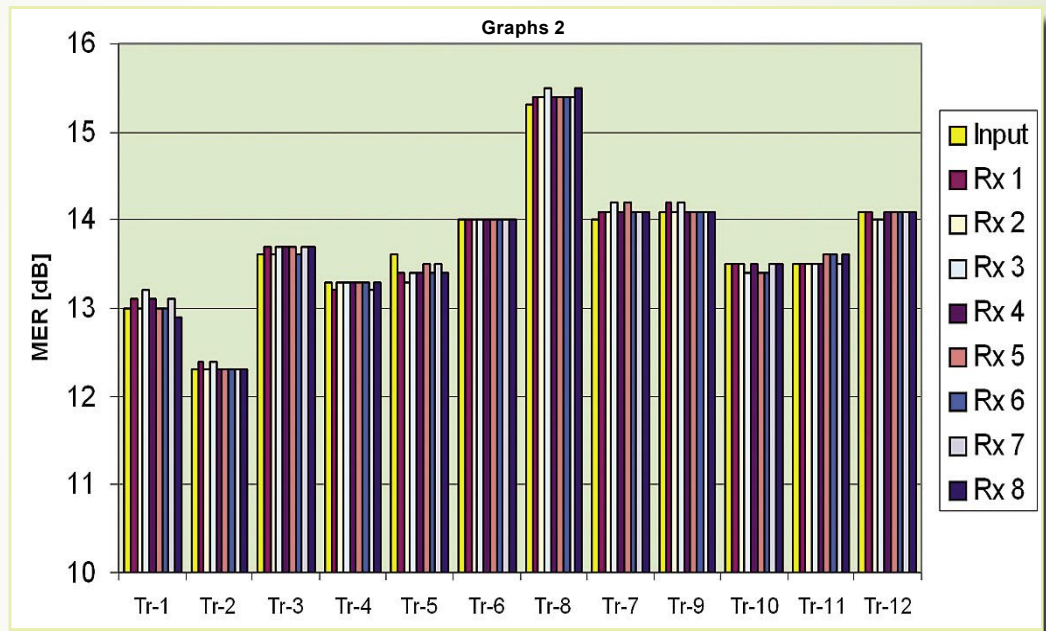
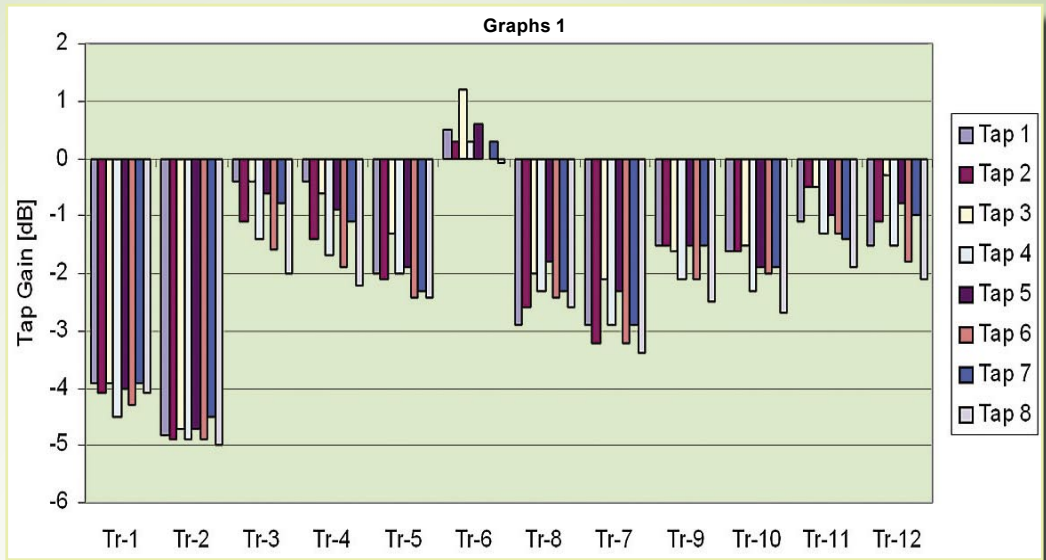
Transponder	Pol.	Freq.	Multiswitch input
Tr-1	V	10719	VL
Tr-2	H	10723	HL
Tr-3	H	11296	HL
Tr-4	V	11278	VL
Tr-5	H	11642	HL
Tr-6	V	11662	VL
Tr-8	V	11727	VH
Tr-7	H	11747	HH
Tr-9	H	12092	HH
Tr-10	V	12111	VH
Tr-11	V	12713	VH
Tr-12	H	12731	HH

should be within -5 dB...+1 dB. We took the measurements and it was the first nice surprise. As you can see on the graphs (Graphs 1), the actual results absolutely confirm what the manufacturer claims.

Moreover, the differences in the tap gain between the taps are only about 1 dB. It is almost nothing.

Now the most critical test. Many multiswitches deteriorate the quality of the signal. The quality is usually measured as C/N or MER. We decided to use modulation error ratio.

And this was the time we got completely stunned. See the MER graphs (Graphs 2). No difference between the input and all the taps. Signal outgoing from the SMS 5808 NF is exactly as good as the one coming from the LNB! On every tap! There is no need to use any bigger dish because of this multiswitch - your receivers will be getting the signal as good as you were directly connected to the LNB.



Expert Opinion

+
Exceptional performance – extremely low noise and good tap gain characteristics. Possibility to use quattro, twin or quad LNB. Standby mode saves our money and is eco-friendly. Very good workmanship.



Jacek Pawlowski
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Test Center
Poland

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None

TECHNIC DATA	
Manufacturer	SPAUN Electronic, Byk-Gulden-Str. 22, D-78224 Singen, Germany
Website	http://www.spaun.de
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Model	SMS 5808 NF
Function	Multiswitch with standby mode
Inputs	4 satellite and 1 terrestrial
Receiver outputs	8
Tap Gain SAT-IF 950...2150 MHz	-5...+1 dB
Tap Gain Terrestrial 47...862 MHz	-2...-3dB
Mains supply	100...240 V 50...60 Hz
Power consumption (operate)	13 W
Power consumption (standby)	3.5 W
LNB supply current	300 mA max.
Current consumption on receiver outputs	40 mA each
Isolation between receiver outputs	26 dB min.
Ambient temperature	-20 ... +50 °C (Indoor use only!)
Dimensions	259 x 132 x 56 mm