

# MEGASAT LNBs Extremely Small and Extremely Well



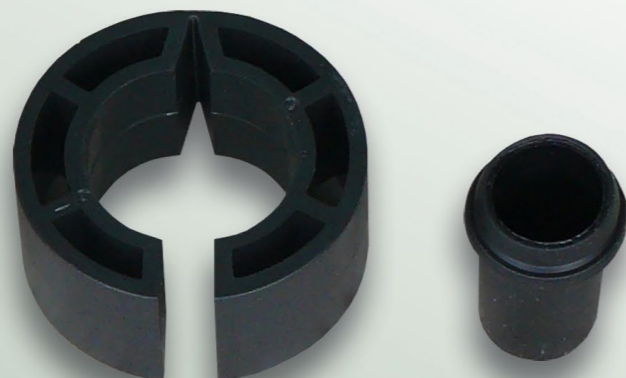
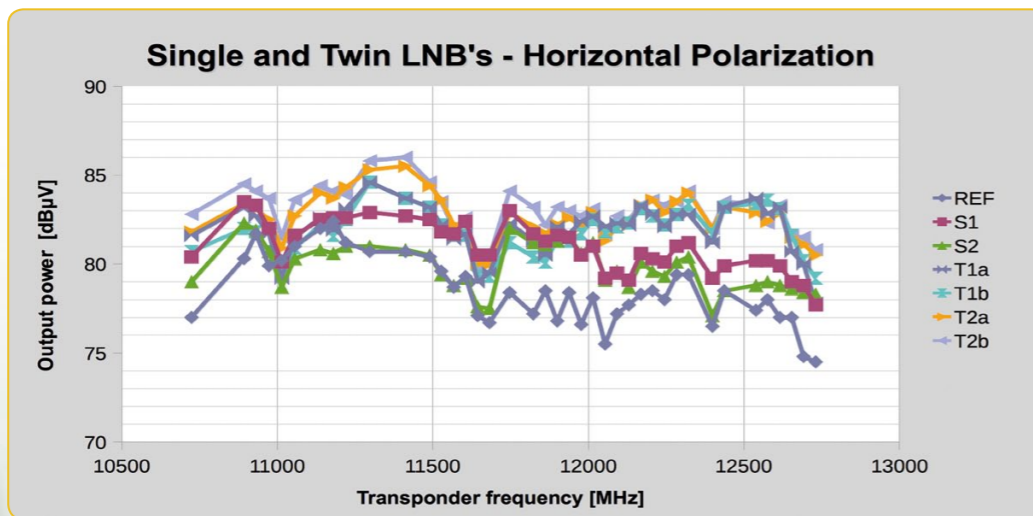
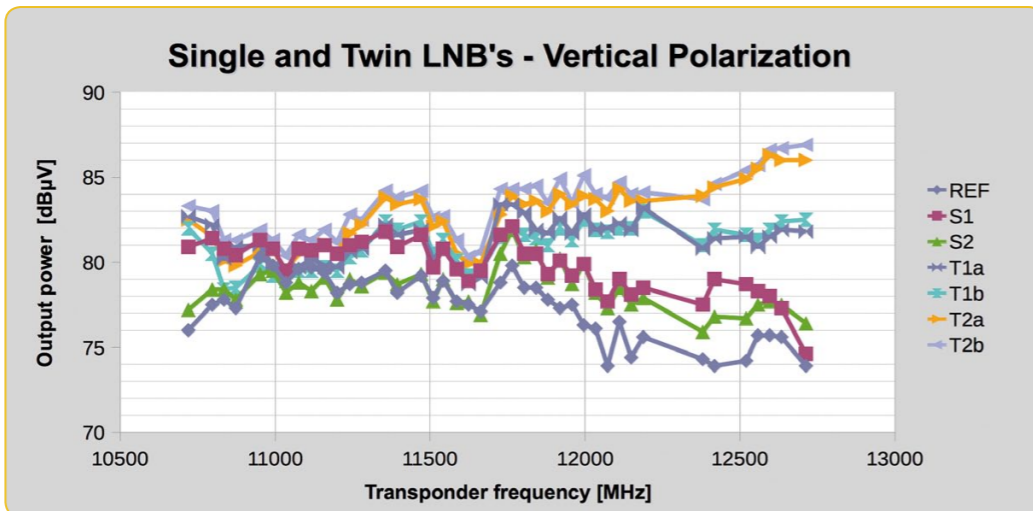
- *very small size*
- *perfectly suited for multi-LNB dishes*
- *extremely light weighted*
- *powerful output*
- *excellent noise figures*



# Small and Well

## Can You Believe MEGASAT's Specifications?

In today's market reality, the noise figure has become THE parameter for evaluating LNB performance. If you do not mark your LNB at least NF=0.3 dB, you will hardly sell any. So most of the manufacturers mark their products as 0.3 dB or 0.2 dB. From time to time, we can spot a product marked 0.1 dB. Can we assume that a product marked 0.1 dB will perform better than 0.2 dB, and 0.2 dB will beat 0.3 dB?

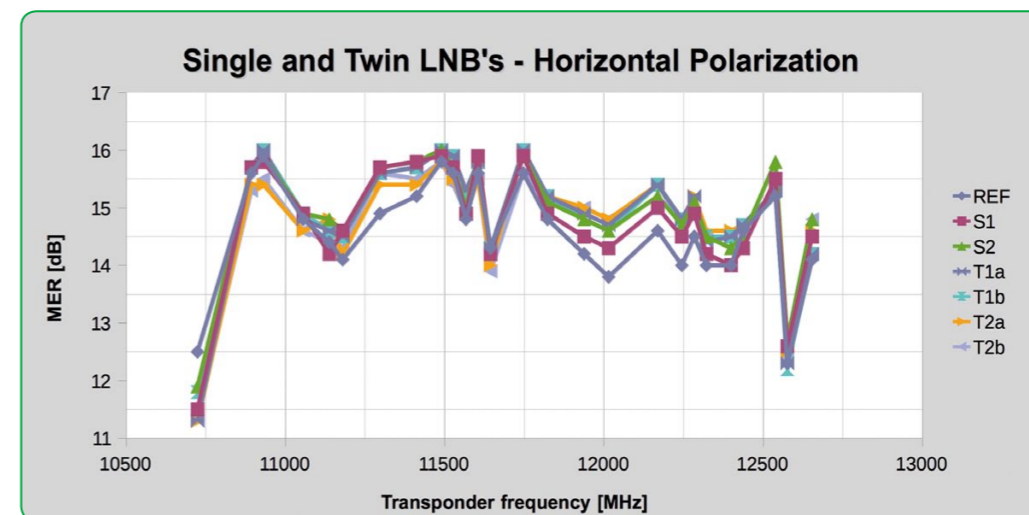
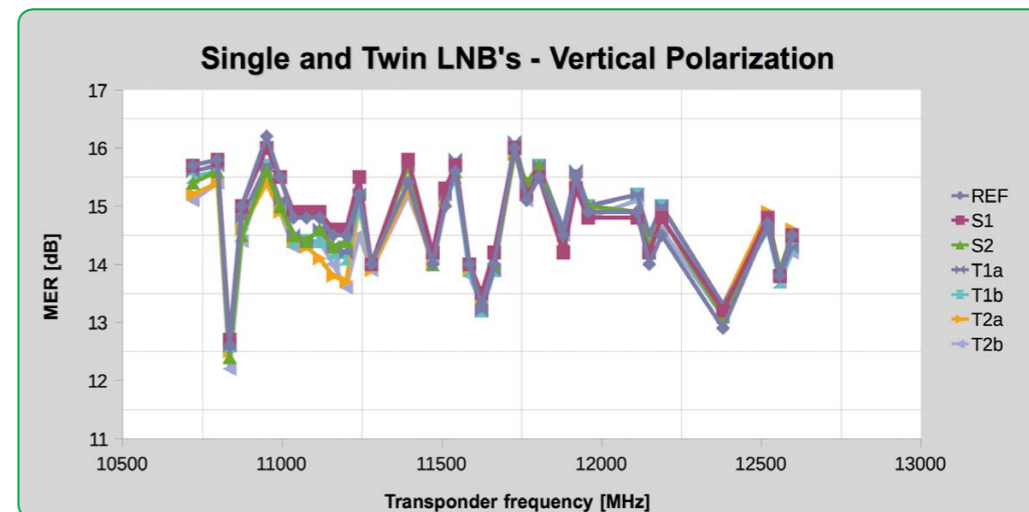
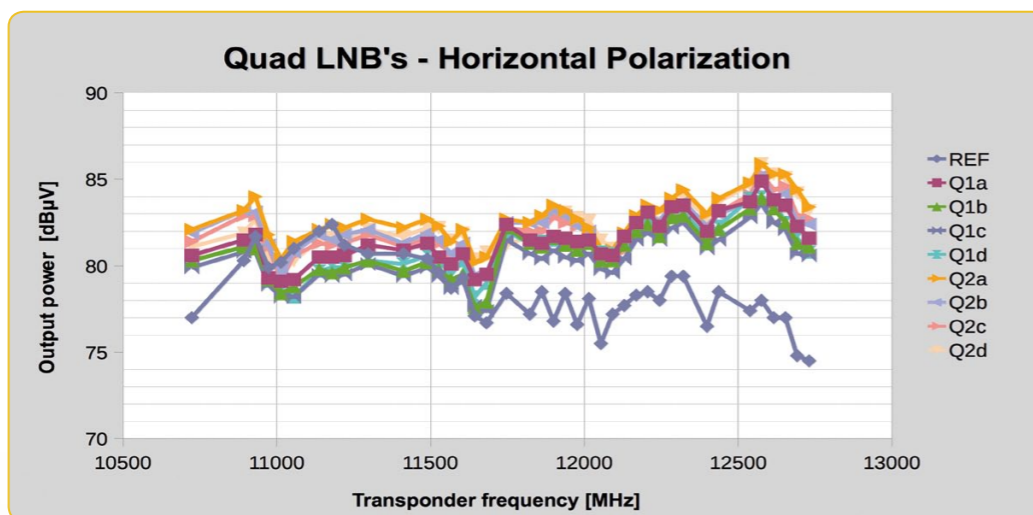
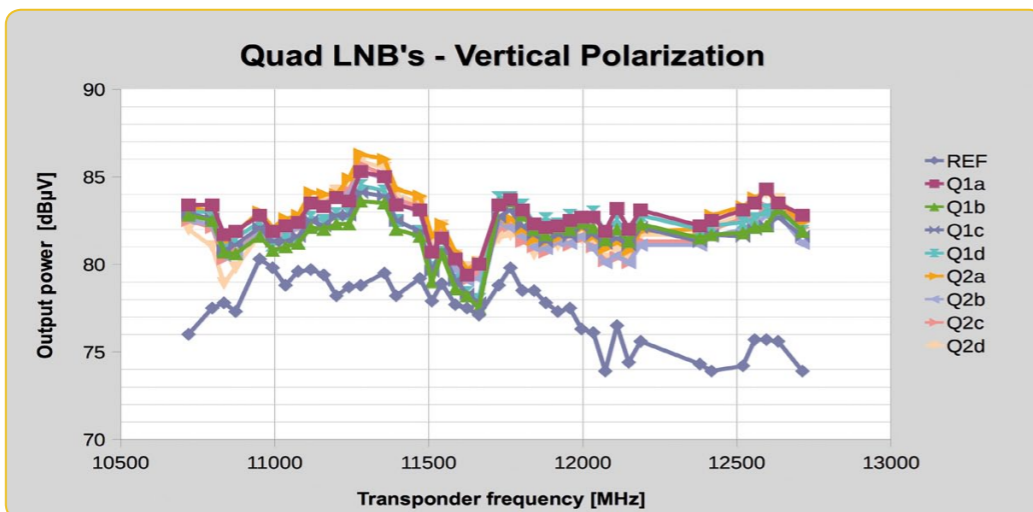


Well, not really. Nothing else but the real test in which we compare the new product against a very good competitor can reveal the truth. So frankly saying, when we saw the 0.1 dB Megasat Multifeed LNB's, we were somewhat skeptical.

The more so as these were not the well matured regular LNB's but the narrow profile devices suitable for multifeed systems for closely spaced satellites. Designed for 23 mm diameter holders,

each unit has also an additional ring adapter for classical 40 mm holders. So, nothing prevents mounting them on the regular offset dishes. Another striking characteristic is their low weight. The quad model is probably half the weight of the typical quad LNB. Their workmanship leaves absolutely nothing to be desired.

So, the first impression was really great. But what about this 0.1 dB noise figure? Can the new LNB's really match the matured classical designs? Or is this just "creative marketing"? There was no other way but to compare the samples with a known LNB of very good quality that we keep in our lab as reference. Our reference has superior noise performance and quite large output power. We com-



really very well. All of them matched our reference LNB and even for some transponders of horizontal polarization they were slightly better (by 0.5 dB). That's really impressive! This means that not only they have low noise figure but they are also quite resistive to cross modulation.

According to our measurements, power consumption of Megasat family is quite low: 70 mA for single, 162 mA for twin and 147 mA for quad LNB.

This is a real pleasure for a test editor to get samples that are so superior in all their parameters. We can do nothing but heartily recommend all Megasat Multifeed LNBs not only for the common TV viewers but also for the enthusiastic satellite DXers. They have excellent electrical parameters, they are narrow profiled, suitable for 23 mm & 40 mm holders and very light. You can put a lot of them on a single dish without any fear of overloading mechanically your antenna.

pared it to a number of other brands and selected it to be our reference device for all new LNB's. Will the narrow profile lightweight Megasat Multifeed LNB's get close to it?

We installed the samples on a 85 cm offset dish with classical 40 mm holder. The included adapters made this operation simple. Once again we appreciated the low weight of the devices. This makes the whole an-

tenna more stable and resistant to strong winds. For our tests we used two samples of each type: single, twin and quad. So, a lot of LNBs, a lot of measurements and a lot of data to process. However, in this way, TELE-satellite readers get very objective results. In the attached charts we marked the results of our reference LNB as "REF". Megasat Multifeed Single LNBs were marked as S1 and S2, twin versions as

T1 and T2 and quad versions as Q1 and Q2. The individual outputs of twin LNB's were designated with letters a and b, while for quad versions with letters a, b, c and d.

When we measure output power (signal strength at the LNB output), we usually do not publish detailed charts but only assess whether it is strong enough for long cables or you should rather keep the cables short in your installation. However, this time the results were so shocking to us that we decided to present all output power charts. You can see in the charts that for practically every satellite transponder, Megasat's LNBs produced stronger signal than our reference. One could expect that the quad LNB would not be as good as single or twins but no - it was even better!

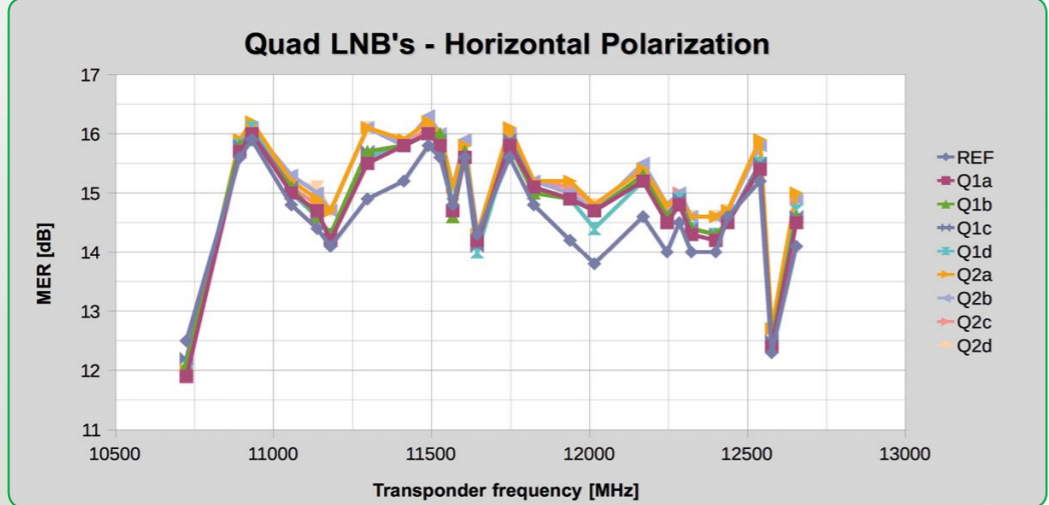
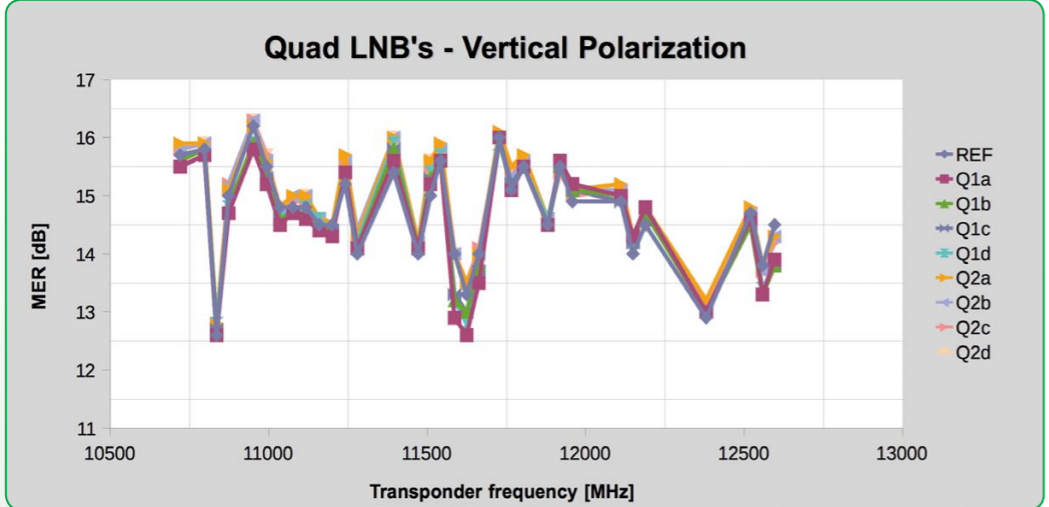
That's something we really did not expect. Megasat's LNBs are well suited for long cable installation and their output is high enough to compensate potential signal losses in DiSEqC switches and multiswitches connected to their outputs.

And what about signal quality? The most conveni-

ent parameter for assessing quality of the signal produced by an LNB is modulation error ratio (MER). The parameter is related to the signal versus the noise ratio. For a typical signal (27.5 Ms/sec) 6-7 dB is the reception threshold. The better the LNB the higher MER of its output signal. As you can

see in the charts all Megasat Multifeed LNBs performed





TECHNICAL DATA	
Manufacturer	MEGASAT, B2C-electronic GmbH, Niederlauer, Germany
Internet	www.megasat.tv
E-mail	info@b2c-electronic.de
Telephone	+49-9771-63 567-100
Fax	+49-9771-63 567-109
Model	Meagast Multifeed
Function	Universal Ku-Band Single, Twin and Quad LNB for linear polarization
Input Frequency	10.7 GHz – 12 GHz
Output Frequency	950 MHz – 2150 MHz
Noise Figure	0.1 dB

### Expert Opinion

+ Excellent electrical parameters – low noise and high output signal level  
 Lightweight and narrow profile  
 Suitable for 23 mm and 40 mm holders  
 Very good workmanship.  
 Especially recommended for multifeed systems to receive closely spaced satellites (like 2°)



Jacek Pawlowski  
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Poland

- None.