

CALLISTO status report #11 of 2004-10-14**To:**

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FPU (focal plane unit)

A German company (KUHNE electronic GmbH) offers a new broadband amplifier which seems to fulfill most of our requirements. Two of them are installed now and we are testing them. The specifications are: Frequency range = 5MHz...1500MHz, Gain = 18dB...20dB, Noise figure = 1,5dB max. / 1,2dB typ. , IP3 = 35dBm, price = 285Euro (!) After a long time of evaluation we finally found a 90° hybrid partly covering the frequency range of CALLISTO. Merrimac offers a hybrid QHS-6-225 covering 50MHz...400MHz which we will test soon and afterwards will use to measure circular polarization at Bleien observatory. One hybrid costs about 2300USD, while a similar device could be bought on eBay for about 20Euro.

RCU (receiver control unit)

Not applicable

RX (receiver)

Not applicable

Host-PC

No new upgrades have been implemented since last report. Next update will supply GPS – NMEA code as timing source. Last ‘official’ software is now available as zip file on: <http://www.astro.phys.ethz.ch/instrument/callisto/Appdocs/applicabledocs.htm> (To be found under subject configuration).

Server

PERL script created by Christian Poepper runs without any problems. New quick views have been implemented by Hansueli Meyer, see: http://www.astro.phys.ethz.ch/cgi-bin/showdir?dir=qv_callisto&file=dir.html Burst list and spectra have been improved by Pascal Saint-Hilaire, see: http://www.astro.phys.ethz.ch/rapp/bursts/2004/07/20/Phoenix2_20040720_122600_1.png

QM (qualification model)

QM is still running at Bleien observatory observing 45MHz...160MHz linear polarized.

FM/FS (flight models and flight spare)

FM1 located at NRAO is set into operation by Erin Mastrantonio, status unclear...(?)

FM2 is still running at Zurich sun tower observing 160MHz...437MHz LHCP and RHCP.

FM3 running at the authors home to test 90° hybrids at 70cm wavelength

FM4 ready for something else (field measurements)

FS not yet completed, still in electronics lab.

AOB (any other business)

We have to think about the output format. Shall we stay with our special RAW-format or shall we change to the more common FITS-format? With nowadays PC power it's no problem to write FITS directly onto the PC's hard disk. As a disadvantage we had to downgrade the existing PERL- and IDL scripts (delete conversion function raw2fits).