**Subject:** RE: K-band receiver noise characterization **From:** "Olin, Timothy R" <TOlin@cdscc.nasa.gov>

**Date:** Tue, 8 Oct 2013 14:17:51 +1100 **To:** Tom Kuiper < kuiper@jpl.nasa.gov>

CC: "Baines, Graham P" <GBaines@cdscc.nasa.gov>, "Horiuchi, Shinji" <shoriuchi@cdscc.nasa.gov>

Hi Tom,

Attached are the log files from today's effort.

The '43\_HxP1L\_CHx' files are from the start before we were able to rotate the subreflector to the correct position, while the ones with '\_SR' on the end are after it was correctly moved. The 'x' in the filename is either 1 or 2 and refers to the horn/beam.

ACME only records power meter readings to 2 decimal places, with about 100 readings every second. We normally just average the 1 second's worth of data if we're not looking for sub-1 second changes. The date format is US-style and the time is UTC.

Let me know if this is what you were after and/or expecting?

## Regards,

## **Timothy Olin**

From: Horiuchi, Shinji

Sent: Tuesday, 8 October 2013 11:26 AM

To: Tom Kuiper

Cc: Olin, Timothy R; Baines, Graham P

**Subject:** RE: K-band receiver noise characterization

Hi Tom,

This morning we managed to rotate sub-reflector R/y/z and started data recording after reasonably fine attenuator adjustment. We are recording Beam1&2 Pol-1/Low outputs to ACME power meters and Beam1&2 Pol-2/Low outputs to squarelaw detector for about a couple of hours. The weather here is fine with clouds at some part of the sky.

By the way, did you mean to address your original email to David Rodstad, or rather to Dave Rochblatt?

Cheers, Shinji.

From: Tom Kuiper [mailto:kuiper@jpl.nasa.gov]

Sent: Saturday, 5 October 2013 4:44 AM

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To: Olin, Timothy R

Cc: Teitelbaum, Larry; greenhill@cfa.harvard.edu; Baines, Graham P; Horiuchi, Shinji; Rogstad, David

Subject: Re: K-band receiver noise characterization

On 10/03/2013 09:55 PM, Olin, Timothy R wrote:

We've had a look over the proposed approach, one issue we'll have is that we can only get the power levels to within 1dB of each other through ACME.

Dear Tim,

we have control if the K-band IF levels to about 0.01 dBm in the K-band down-converter. Ashish and Shinji know how to set the PIN diodes using remote access to the down-converter. I can also do it from here but that would be a little more awkward as you tell me the power levels and I adjust the PIN diodes.

Our plan for Tuesday is to setup the test in the morning and let it run through the half day maintenance period. I can then collect and forward the ACME readings to yourself that afternoon. The current weather forecast is 'partly cloudy', so hopefully there'll be some clouds around to get your ideal situation.

That sounds excellent!

Please confirm that you would like us to proceed and measure the system temperature as described above, or that you would want us to revert to power measurements with the above mentioned constraint.

Please record ACME power levels but adjust the down-converter PIN diodes first as per the above.

Thanks very much!

Tom

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