



Continuous calibration

Table with the current status of the EVN stations for the continuous calibration (band dependent)

Current status of the continuous calibration implementation at the stations

	L Band	C band	M band	X band	K band	Q band	Last updated
Ar							
Bd							
Ef	Available	Available	Available	Available	Available	Available	18-06-2015
Hh	Available	Available	Not yet	Not yet	Available	-	16-04-2024
Jb	80 Hz	80 Hz	80 Hz	-	80 Hz	-	04-04-2019
KVN	-	-	-	-	No	No	10-06-2015
Mc	Available	Available	Available	Available	Available	-	2-04-2019
Mh	-	-	-	No	No	No	15-03-2024
Nt	Available	Available	Available	Available	Available	Available	05-05-2020
On	Available	Available	Available	Available	No	No	11-07-2018
Ro	Available 10Hz	N/A	N/A	Available 10Hz	Not yet	Not yet	3-10-2017
Sr	Available	Available	Available		Available		25-02-2025
T6	Available	Available	Available	Available	Available	Not yet	6-5-2021
Tr	Available	Available	Available	Available	Available	-	08-02-2022
Sh							
Sv							
Ur	Available	Available	-	Available	Available	Available	12-06-2022
Wb	not going to implement on current Receiver because too much effort	not going to implement on current Receiver because too much effort	not going to implement on current Receiver because too much effort	not going to implement on current Receiver because too much effort			29-01-2019

Ys	-	80 Hz	80 Hz	80 Hz	80 Hz	No	8-02-2022
Zc							
Ir	Not yet	Not yet	Not yet	Not yet	N/A	N/A	6-11-2019

- The DBBC allows to detect synchronously an 80 Hz signal integrating the power from the cal off and cal on phases.
- The 80 Hz signal can be obtained from output "Cont Cal".
- Continuous cal can be enabled by typing:
 - *cont_cal=on* (at the FS)
- In some cases the signal is inverted and you can get negative Tsys. This is a pending issue to be solved. It can be solved by patching the FS, but this solution should be avoided in the future and look for a cleaner one. The DBBC allows to invert the signal but this does not work at V105 version yet.
- The file of station.prc should be ready to switch between continuous calibration for some bands and traditional calibration for others. How to properly set it? See the document of /usr2/fs/misc/dbbc.txt
- Note that your noise source should have a Tcal on the level of ~1 K rather than ~10 K.
- Onsala -- we have just tested the latest firmware DDC V105 (version on 2015 Jun 10) which allows to swap the total power sampling between the Cal-On and Cal-Off registers. Now, our FS can do the proper measurements of Tsys, On-off, and Fivept at Onsala. The system is functional now. We have switched it on during N15L3. We are going to reduce Tcal from ~10 K to ~1 K and then start to use it in the user experiments at L and C bands in session 1/2016. The X-band 80Hz calibration hardware is also ready now and will be installed when the manpower is available.
- Hart -- we are working on implementing this on our 15m first as a test bed to see how well our solution will work. At the moment we are still waitin gon components for that.