KVN Station Report (2016 Feb.)

Taehyun Jung
thjung@kasi.re.kr

1. Antenna

- In order to investigate the thermal effects on the antenna pointing (deformation), temperature sensors were installed on the antenna structure.
- Antenna panel alignment at KVN Ulsan is scheduled in the middle of Feb, 2016

2. Receiver

- K-band receiver LNA (LHCP) at KVN Ulsan was replaced

3. Mark5B

- Software : Squeeze, SDK 9.2 & jive5ab-2.6.0, mark5_2.2.0 & mk5bio_2.0.1

4. New instruments

- Three FILA10G-SA for 2/4/8 Gbps operation (partially tested)
  - Successful fringes at 4/8Gbps with FILA10G + Mark6 have been detected
- Agilent Keysight Frequency Counter, 53230A (under tested)
  - Current freq. counter of KVN has a resolution of hundreds nanosecond level accuracy. We are testing this new one that has better accuracy.
- Three Mark6 for 4/8 Gbps operation

5. 2Gbps operation

We are still limited to support EVN 2Gbps operation because of KDAS (KVN DAS system). Digital filtering is only available for 1Gbps with KDAS, but single channel with 512MHz bandwidth (2Gbps mode) is available. We made a short 2Gbps (512MHz single channel) test observation and sent this data to JIVE, but failed to detect fringes.