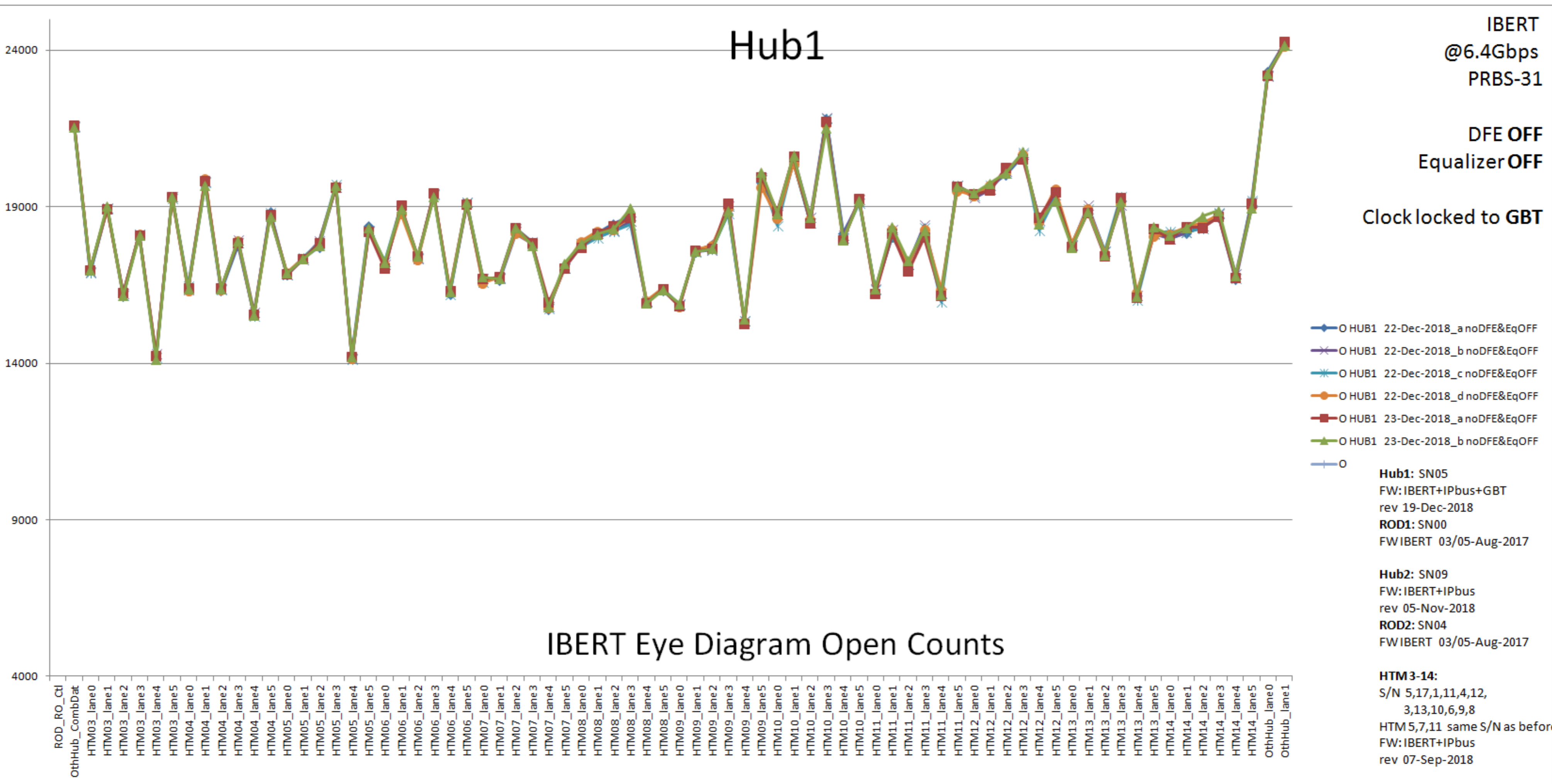


# Hub1

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



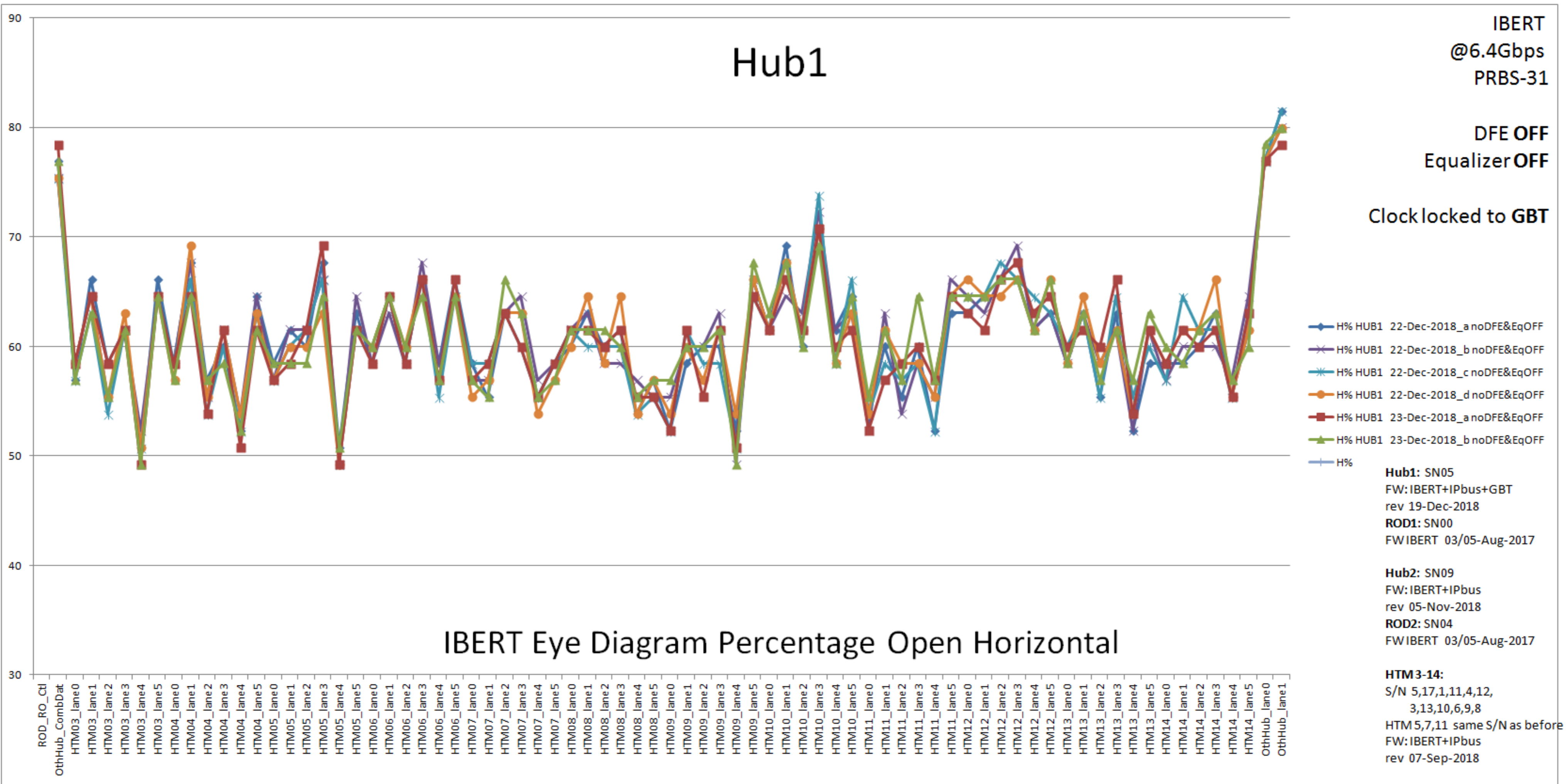
IBERT Eye Diagram Open Counts

# Hub1

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



## IBERT Eye Diagram Percentage Open Horizontal

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FWIBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FWIBERT 03/05-Aug-2017

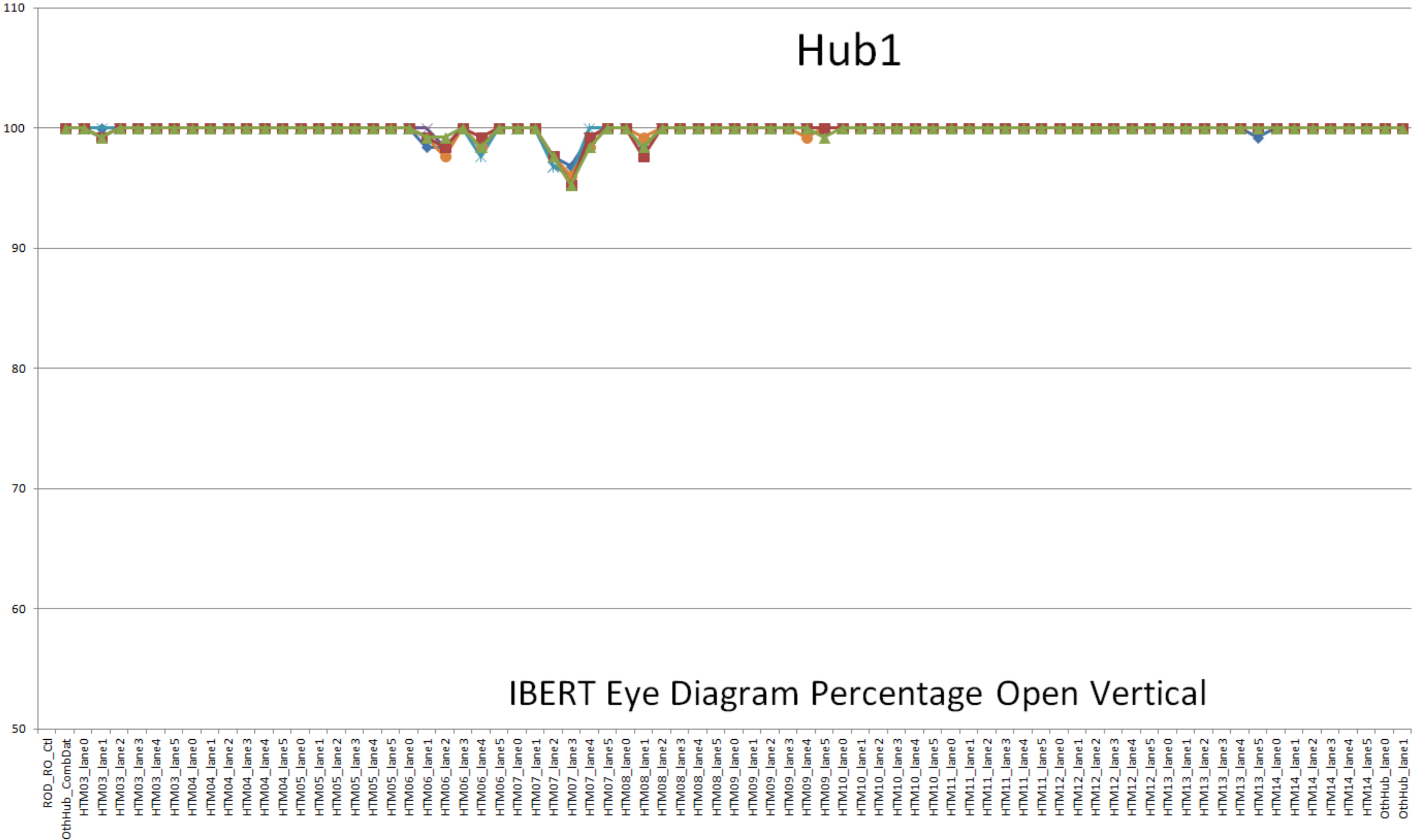
**HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

# Hub1

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



## IBERT Eye Diagram Percentage Open Vertical

- V% HUB1 22-Dec-2018\_a noDFE&EqOFF
  - V% HUB1 22-Dec-2018\_b noDFE&EqOFF
  - V% HUB1 22-Dec-2018\_c noDFE&EqOFF
  - V% HUB1 22-Dec-2018\_d noDFE&EqOFF
  - V% HUB1 23-Dec-2018\_a noDFE&EqOFF
  - V% HUB1 23-Dec-2018\_b noDFE&EqOFF
  - V%
- Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FWIBERT 03/05-Aug-2017
- Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FWIBERT 03/05-Aug-2017
- HTM 3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM 5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

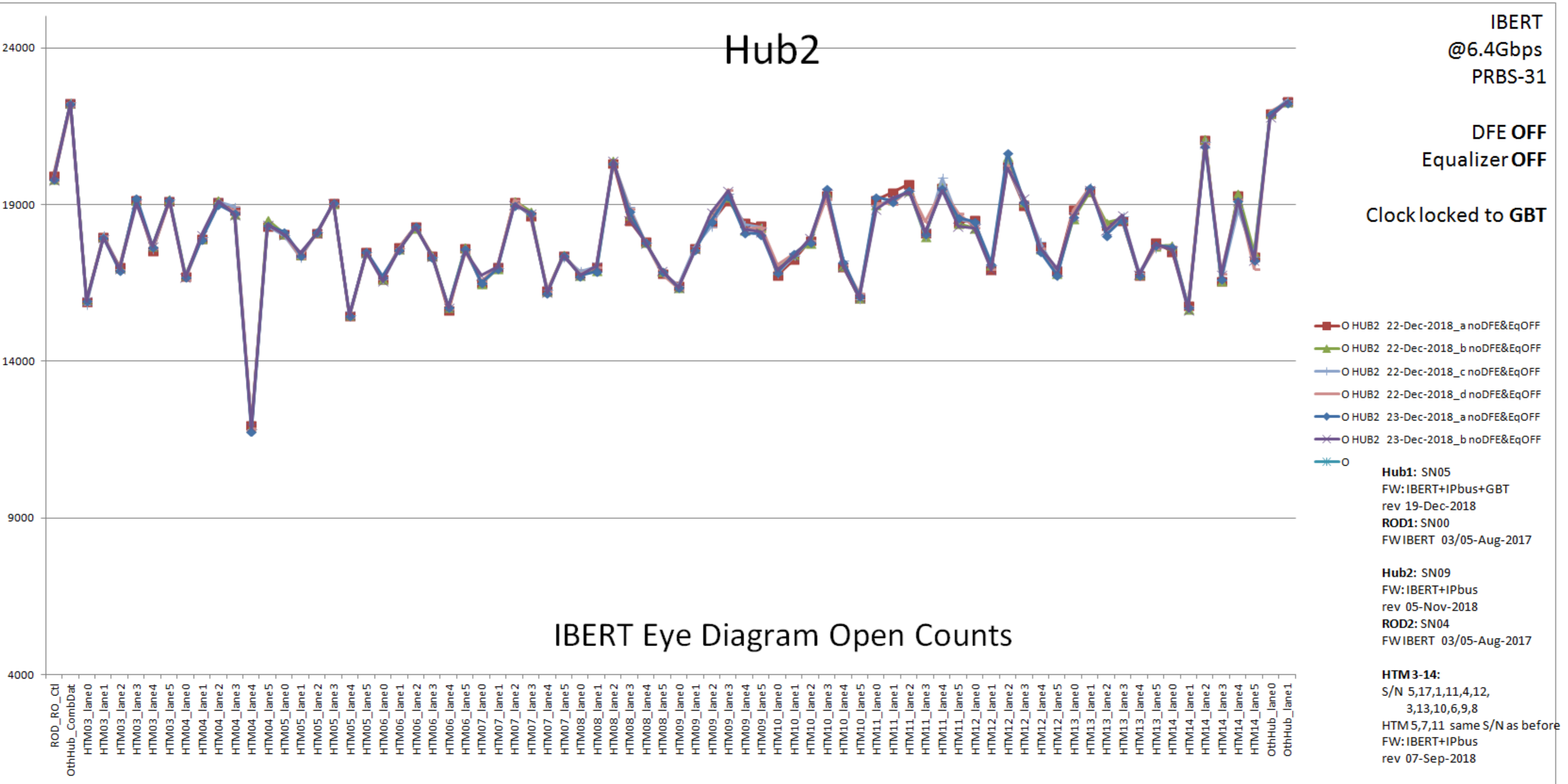


# Hub2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clocklocked to GBT



- O HUB2 22-Dec-2018\_a noDFE&EqOFF
- O HUB2 22-Dec-2018\_b noDFE&EqOFF
- O HUB2 22-Dec-2018\_c noDFE&EqOFF
- O HUB2 22-Dec-2018\_d noDFE&EqOFF
- O HUB2 23-Dec-2018\_a noDFE&EqOFF
- O HUB2 23-Dec-2018\_b noDFE&EqOFF
- O

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FWIBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FWIBERT 03/05-Aug-2017

**HTM 3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM 5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

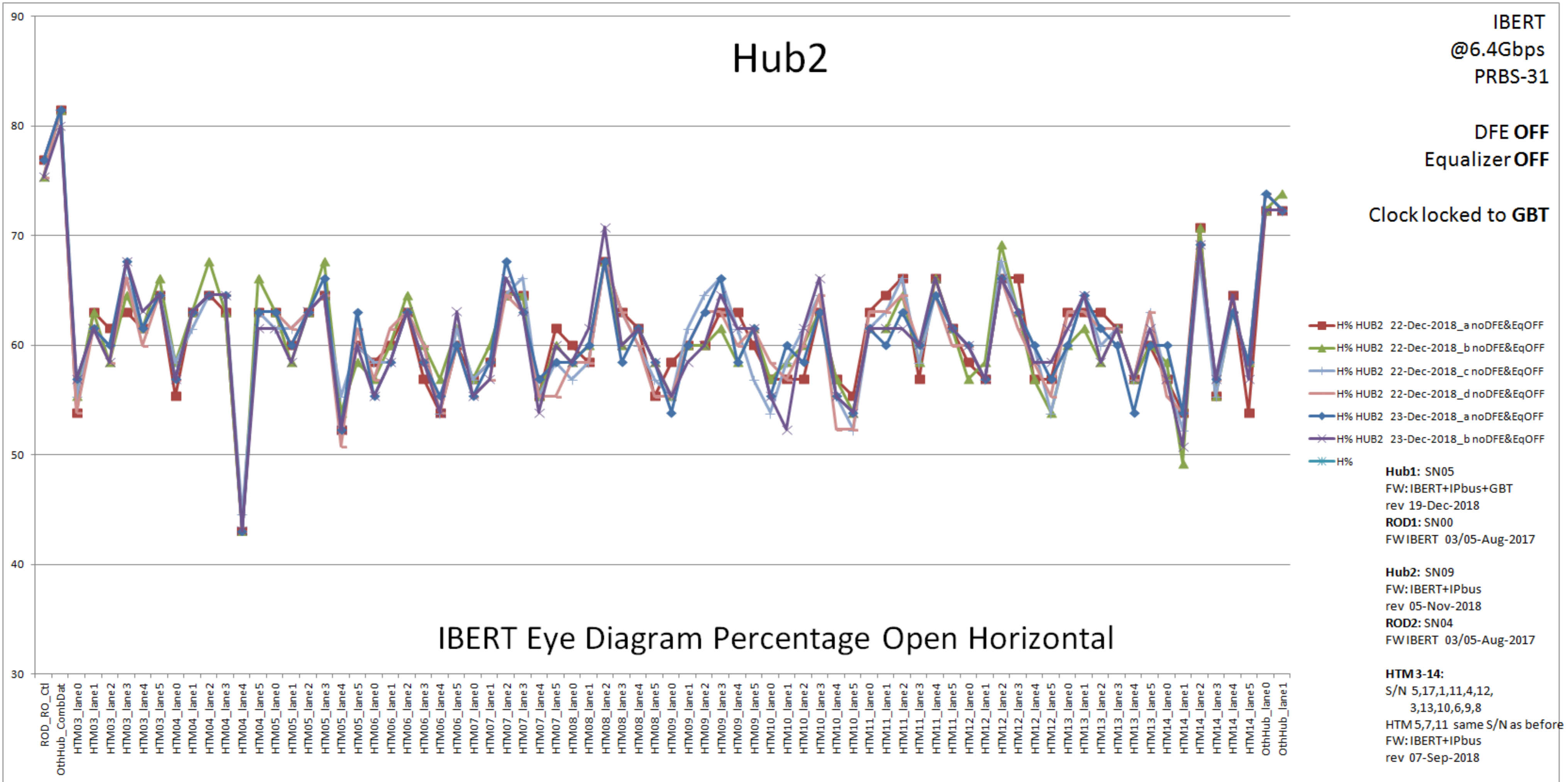
## IBERT Eye Diagram Open Counts

# Hub2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT

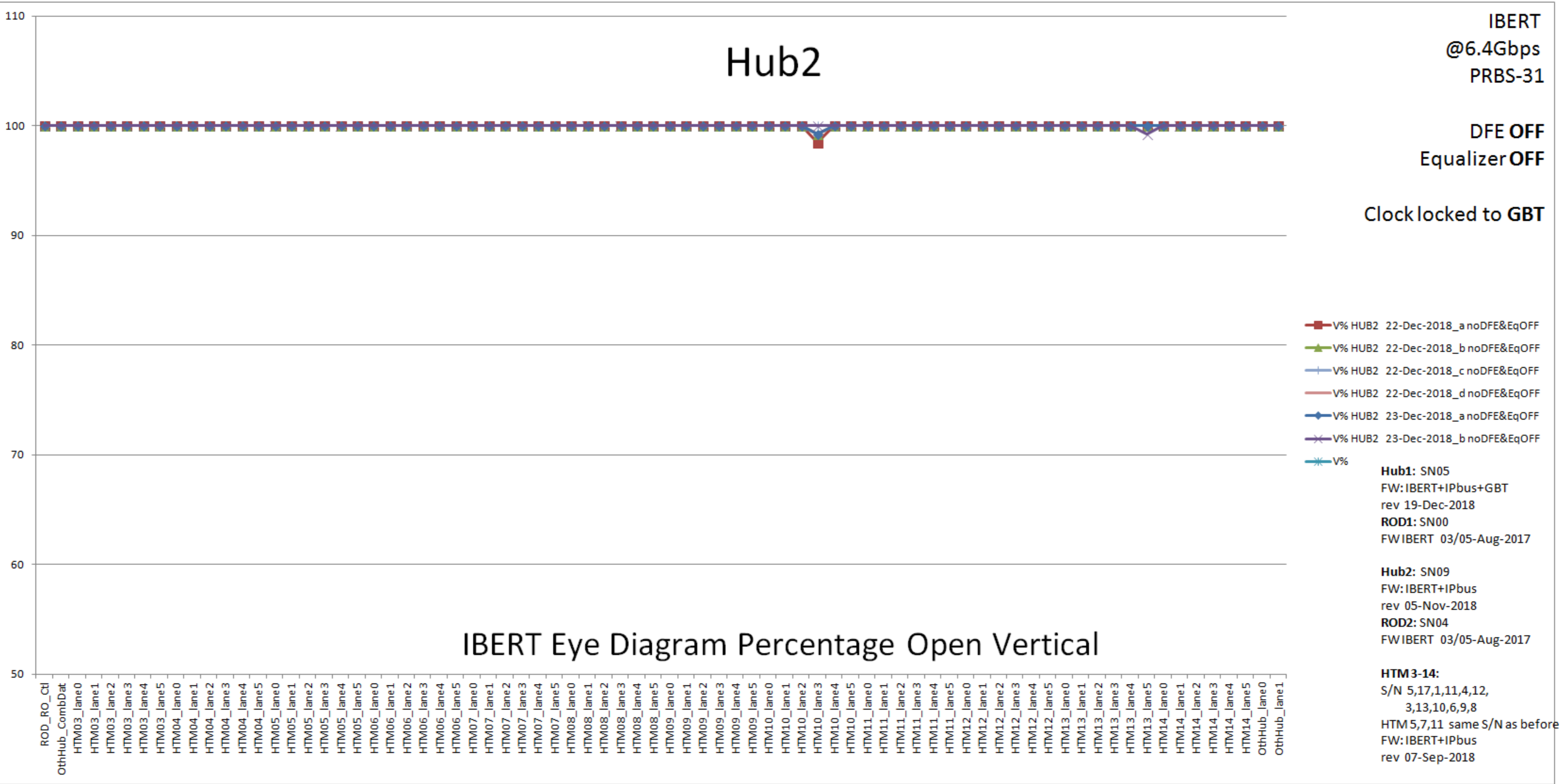


# Hub2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



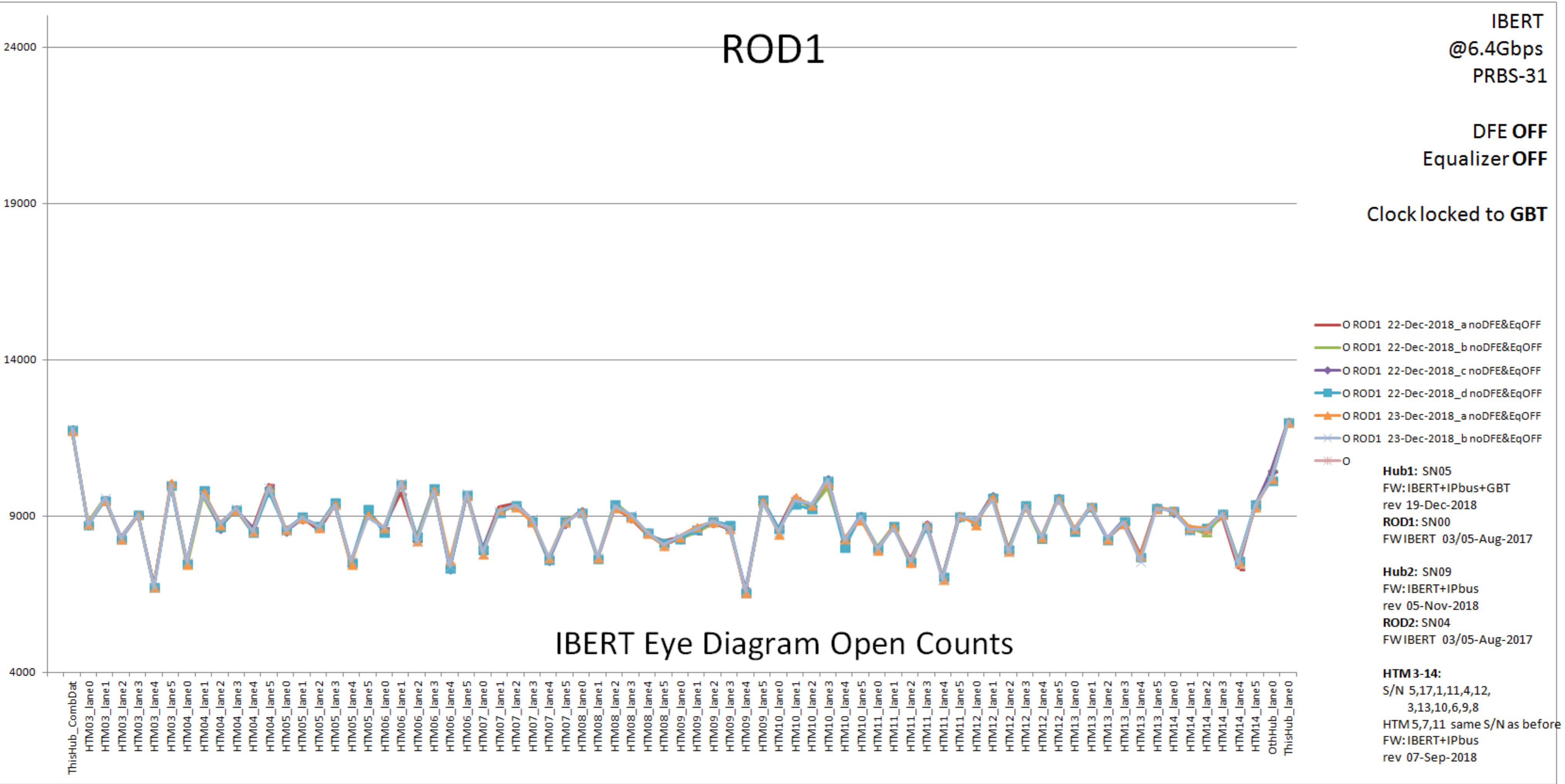


# ROD1

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clocklocked to GBT



- O ROD1 22-Dec-2018\_a noDFE&EqOFF
- O ROD1 22-Dec-2018\_b noDFE&EqOFF
- O ROD1 22-Dec-2018\_c noDFE&EqOFF
- O ROD1 22-Dec-2018\_d noDFE&EqOFF
- O ROD1 23-Dec-2018\_a noDFE&EqOFF
- O ROD1 23-Dec-2018\_b noDFE&EqOFF
- O

Hub1: SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
ROD1: SN00  
FWIBERT 03/05-Aug-2017

Hub2: SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
ROD2: SN04  
FWIBERT 03/05-Aug-2017

HTM3-14:  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

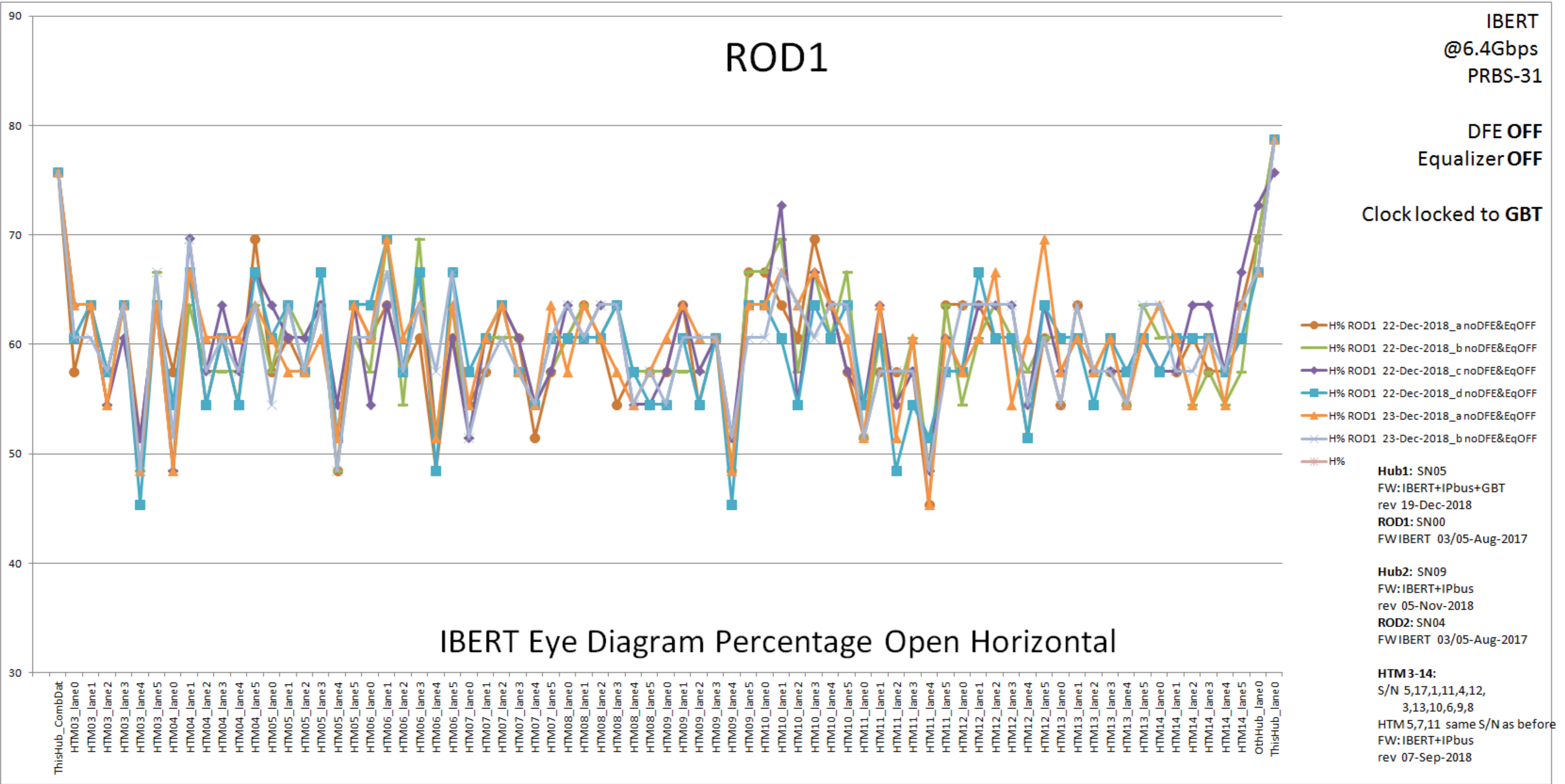
IBERT Eye Diagram Open Counts

# ROD1

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



- H% ROD1 22-Dec-2018\_a noDFE&EqOFF
- H% ROD1 22-Dec-2018\_b noDFE&EqOFF
- H% ROD1 22-Dec-2018\_c noDFE&EqOFF
- H% ROD1 22-Dec-2018\_d noDFE&EqOFF
- H% ROD1 23-Dec-2018\_a noDFE&EqOFF
- H% ROD1 23-Dec-2018\_b noDFE&EqOFF
- H%

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FWIBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FWIBERT 03/05-Aug-2017

**HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

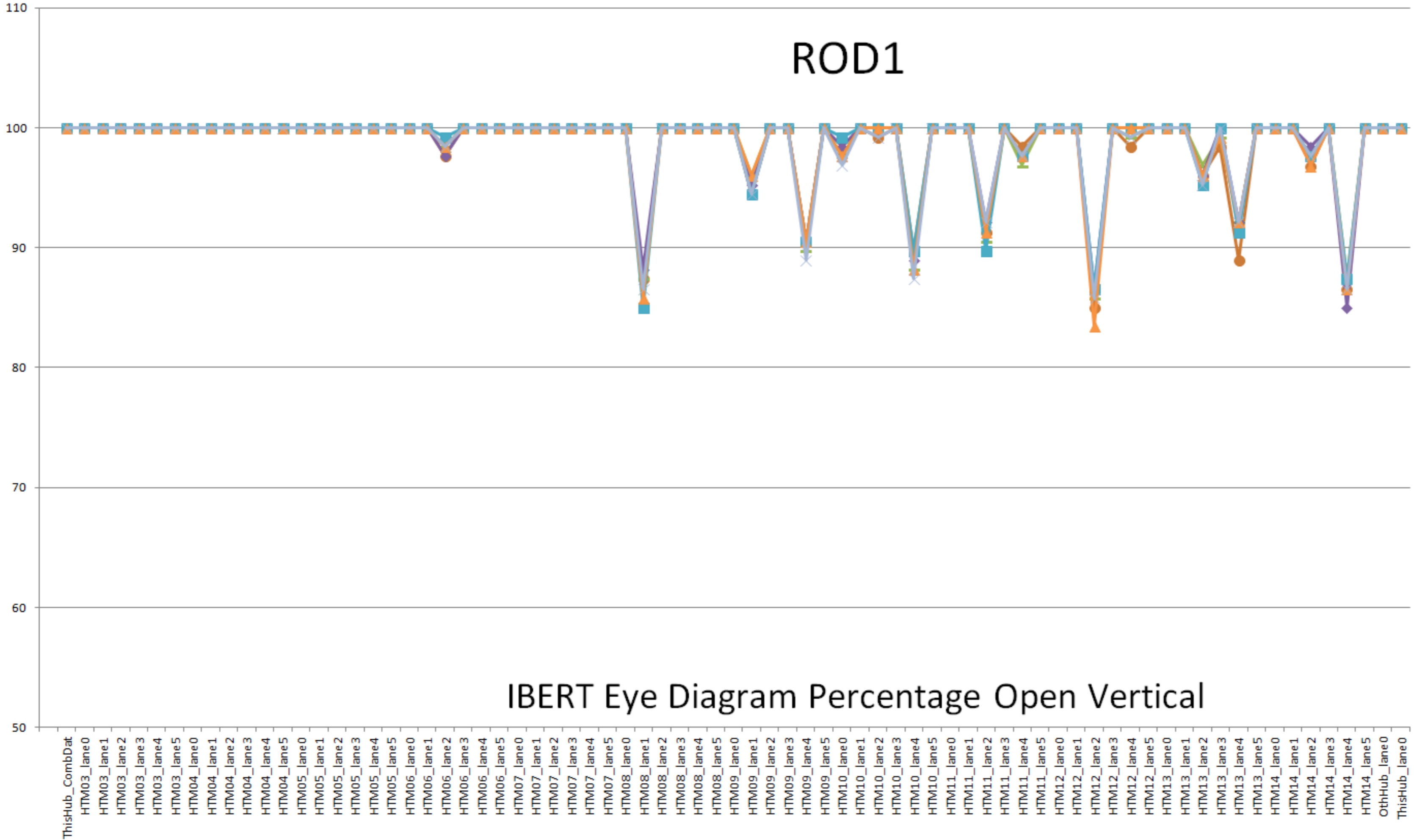


# ROD1

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



## IBERT Eye Diagram Percentage Open Vertical

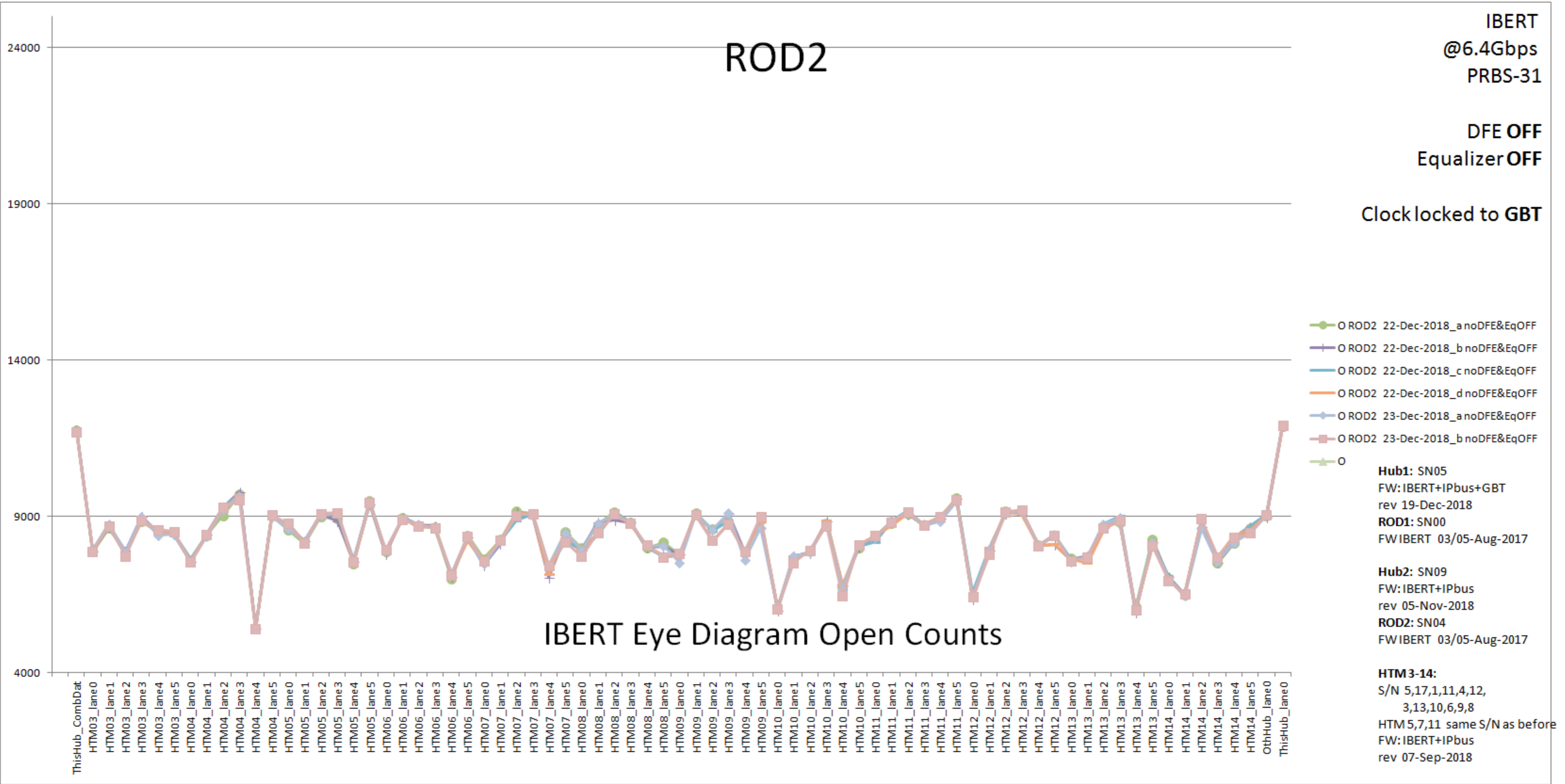
- V% ROD1 22-Dec-2018\_a noDFE&EqOFF
  - V% ROD1 22-Dec-2018\_b noDFE&EqOFF
  - V% ROD1 22-Dec-2018\_c noDFE&EqOFF
  - V% ROD1 22-Dec-2018\_d noDFE&EqOFF
  - V% ROD1 23-Dec-2018\_a noDFE&EqOFF
  - V% ROD1 23-Dec-2018\_b noDFE&EqOFF
  - V%
- Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FW IBERT 03/05-Aug-2017
- Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FW IBERT 03/05-Aug-2017
- HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

# ROD2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



O ROD2 22-Dec-2018\_a noDFE&EqOFF  
O ROD2 22-Dec-2018\_b noDFE&EqOFF  
O ROD2 22-Dec-2018\_c noDFE&EqOFF  
O ROD2 22-Dec-2018\_d noDFE&EqOFF  
O ROD2 23-Dec-2018\_a noDFE&EqOFF  
O ROD2 23-Dec-2018\_b noDFE&EqOFF  
O

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FW: IBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FW: IBERT 03/05-Aug-2017

**HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

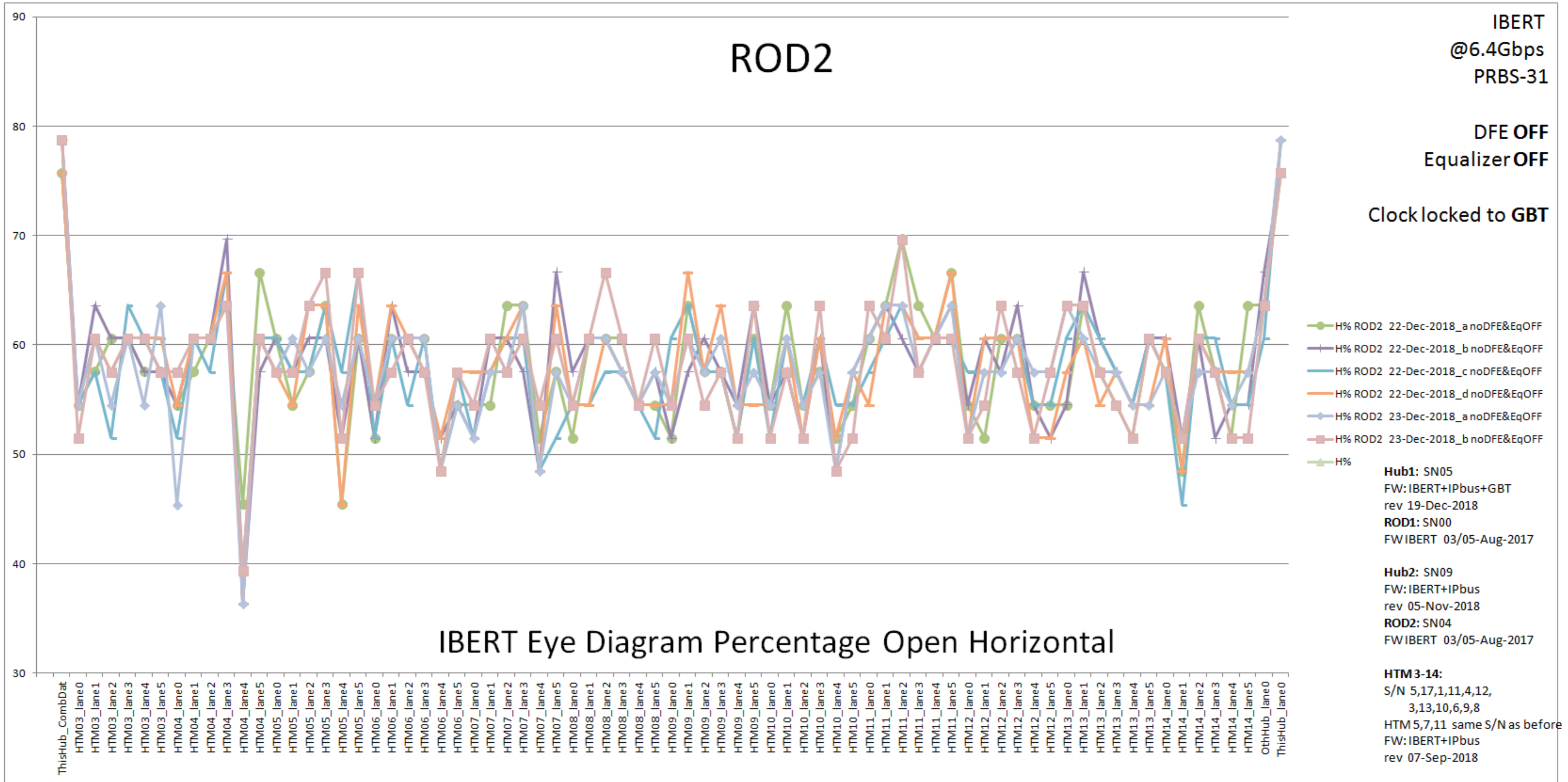
IBERT Eye Diagram Open Counts

# ROD2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



## IBERT Eye Diagram Percentage Open Horizontal

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FW: IBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FW: IBERT 03/05-Aug-2017

**HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

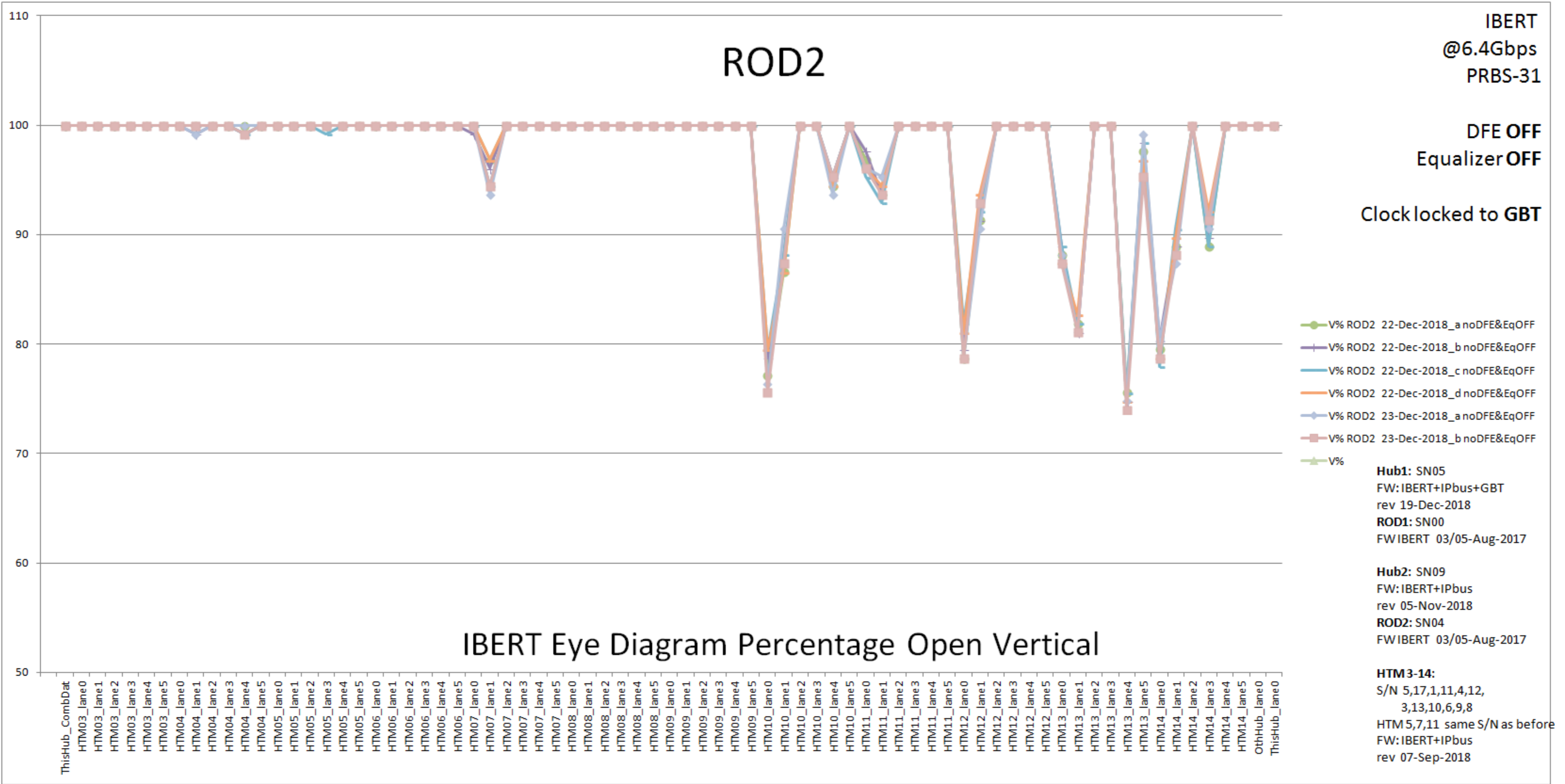


# ROD2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



## IBERT Eye Diagram Percentage Open Vertical

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FWIBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FWIBERT 03/05-Aug-2017

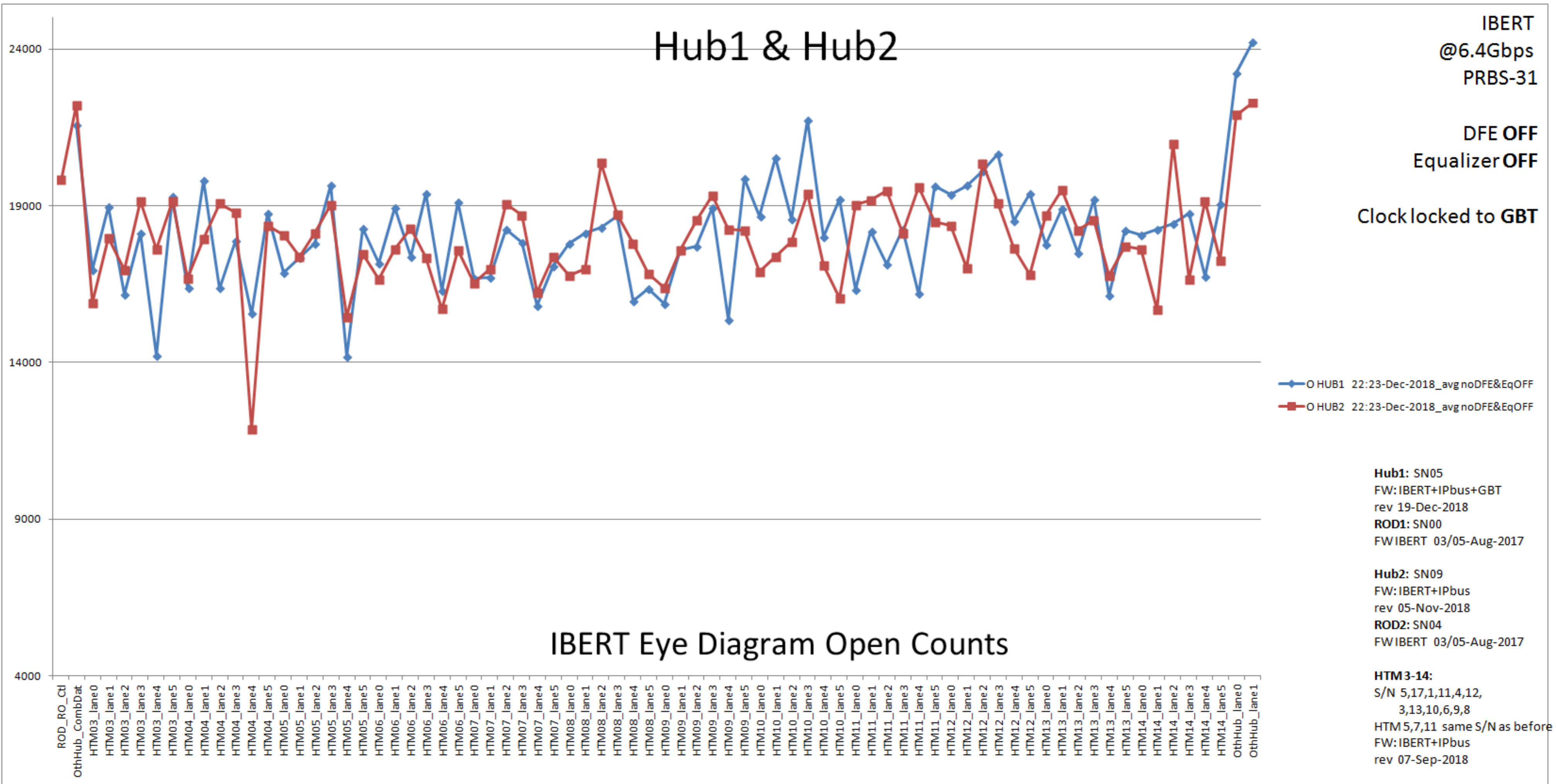
**HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

# Hub1 & Hub2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



## IBERT Eye Diagram Open Counts

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FWIBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FWIBERT 03/05-Aug-2017

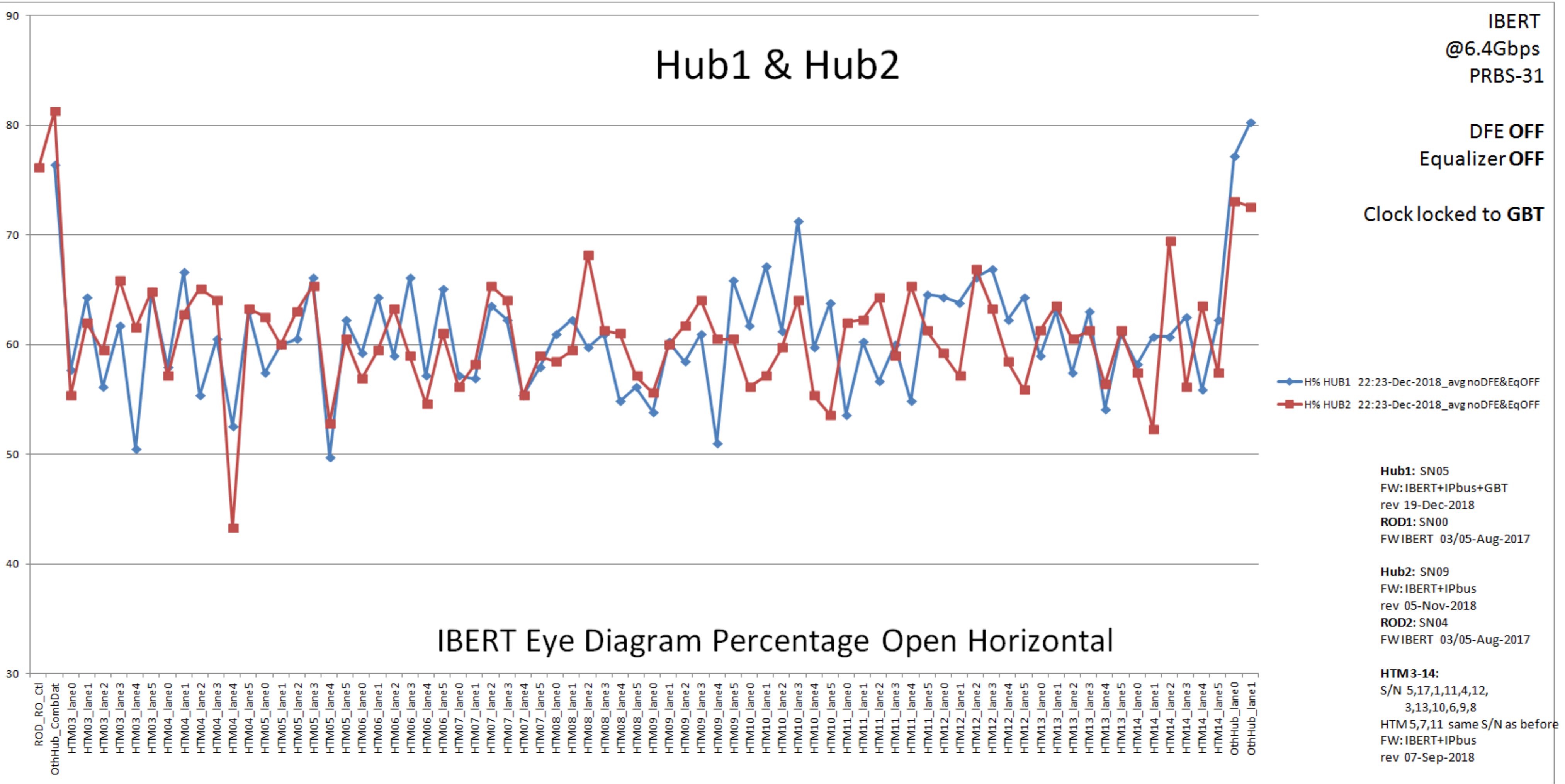
**HTM 3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM 5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

# Hub1 & Hub2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



Legend:  
◆ H% HUB1 22:23-Dec-2018\_avg noDFE&EqOFF  
■ H% HUB2 22:23-Dec-2018\_avg noDFE&EqOFF

**Hub1:** SN05  
 FW: IBERT+IPbus+GBT  
 rev 19-Dec-2018  
**ROD1:** SN00  
 FWIBERT 03/05-Aug-2017

**Hub2:** SN09  
 FW: IBERT+IPbus  
 rev 05-Nov-2018  
**ROD2:** SN04  
 FWIBERT 03/05-Aug-2017

**HTM3-14:**  
 S/N 5,17,1,11,4,12,  
 3,13,10,6,9,8  
 HTM5,7,11 same S/N as before  
 FW: IBERT+IPbus  
 rev 07-Sep-2018

IBERT Eye Diagram Percentage Open Horizontal

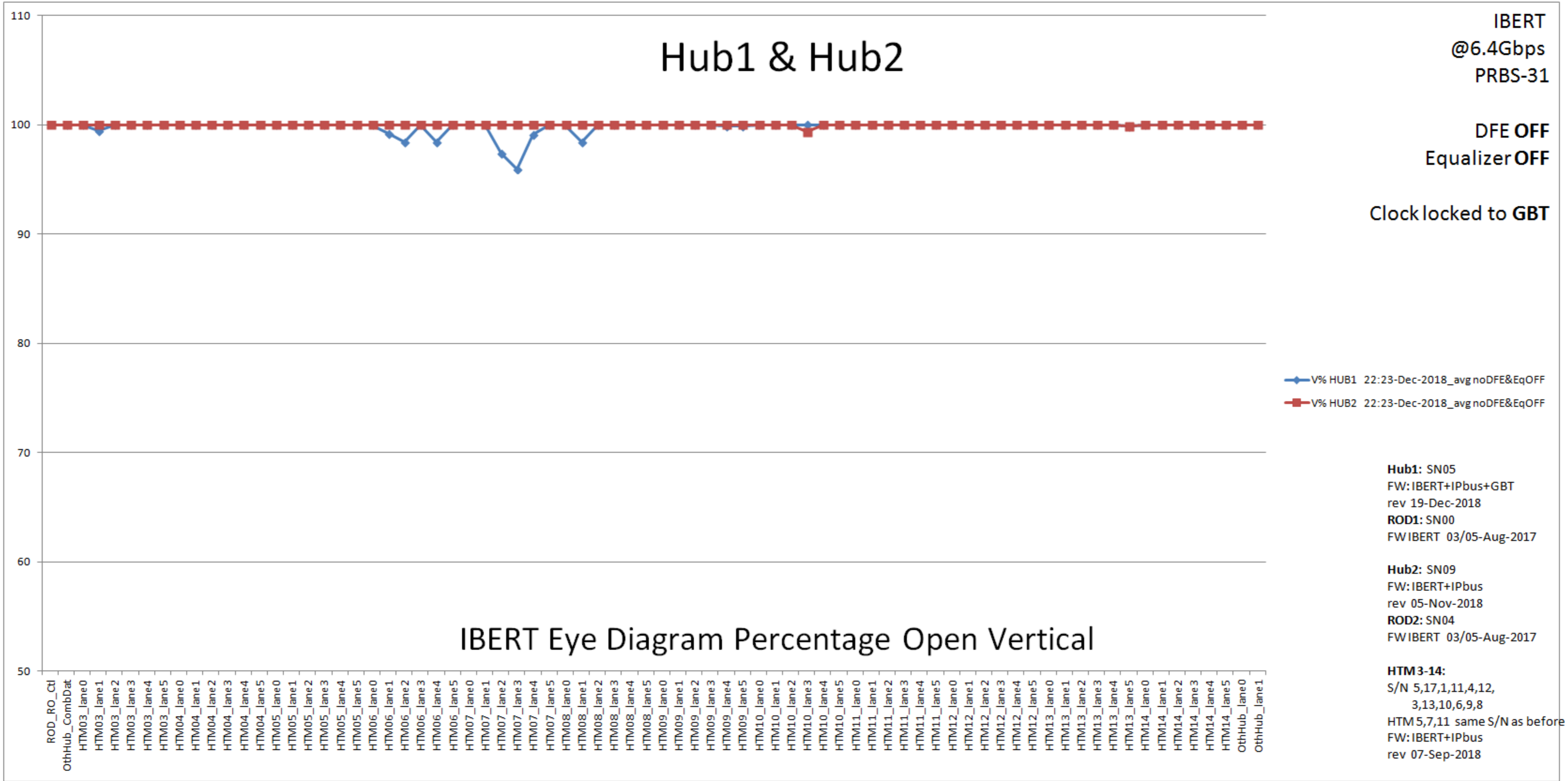


# Hub1 & Hub2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



## IBERT Eye Diagram Percentage Open Vertical

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FWIBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FWIBERT 03/05-Aug-2017

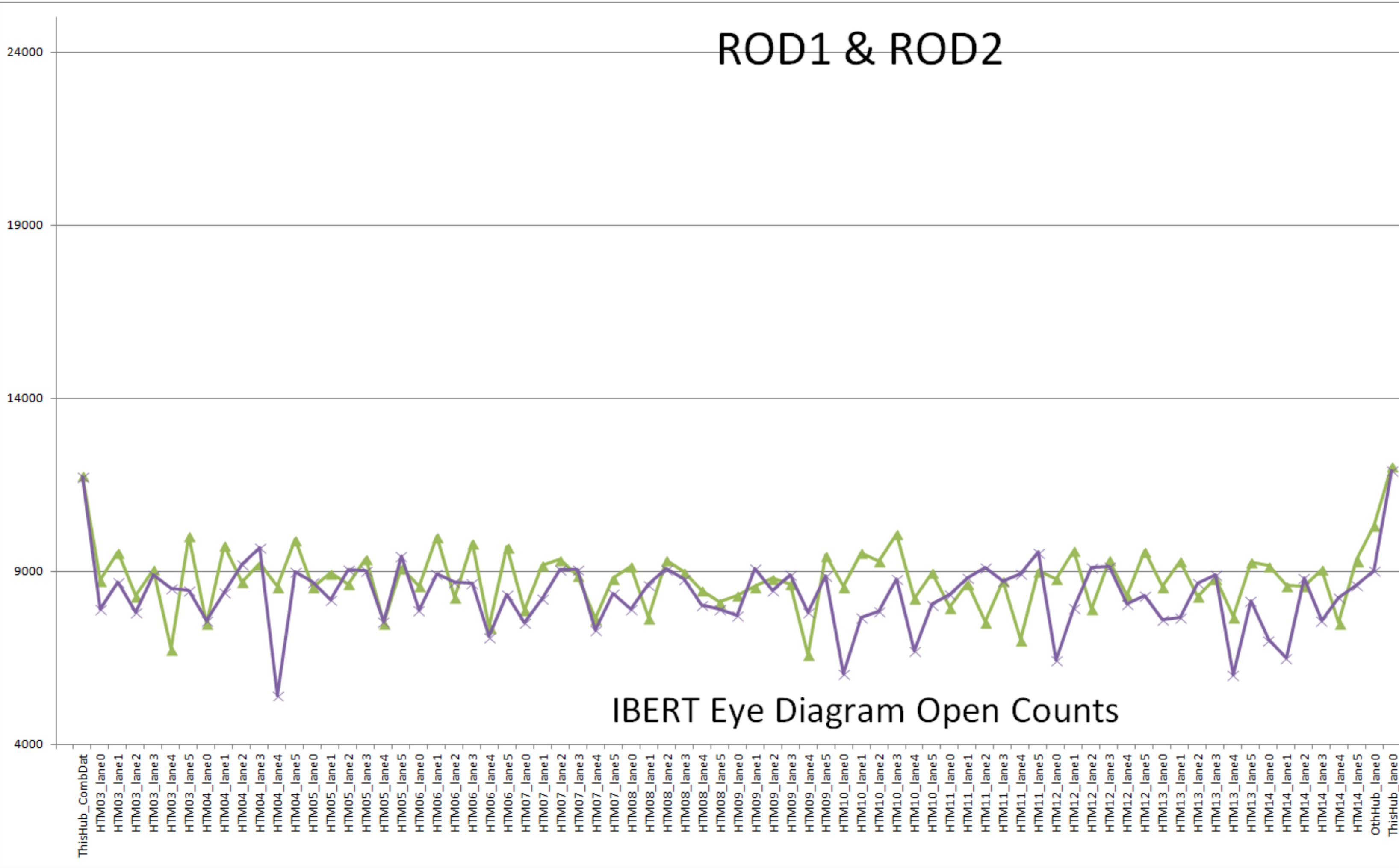
**HTM 3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM 5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

# ROD1 & ROD2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



O ROD1 22:23-Dec-2018\_avg noDFE&EqOFF  
O ROD2 22:23-Dec-2018\_avg noDFE&EqFF

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FW: IBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FW: IBERT 03/05-Aug-2017

**HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM 5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

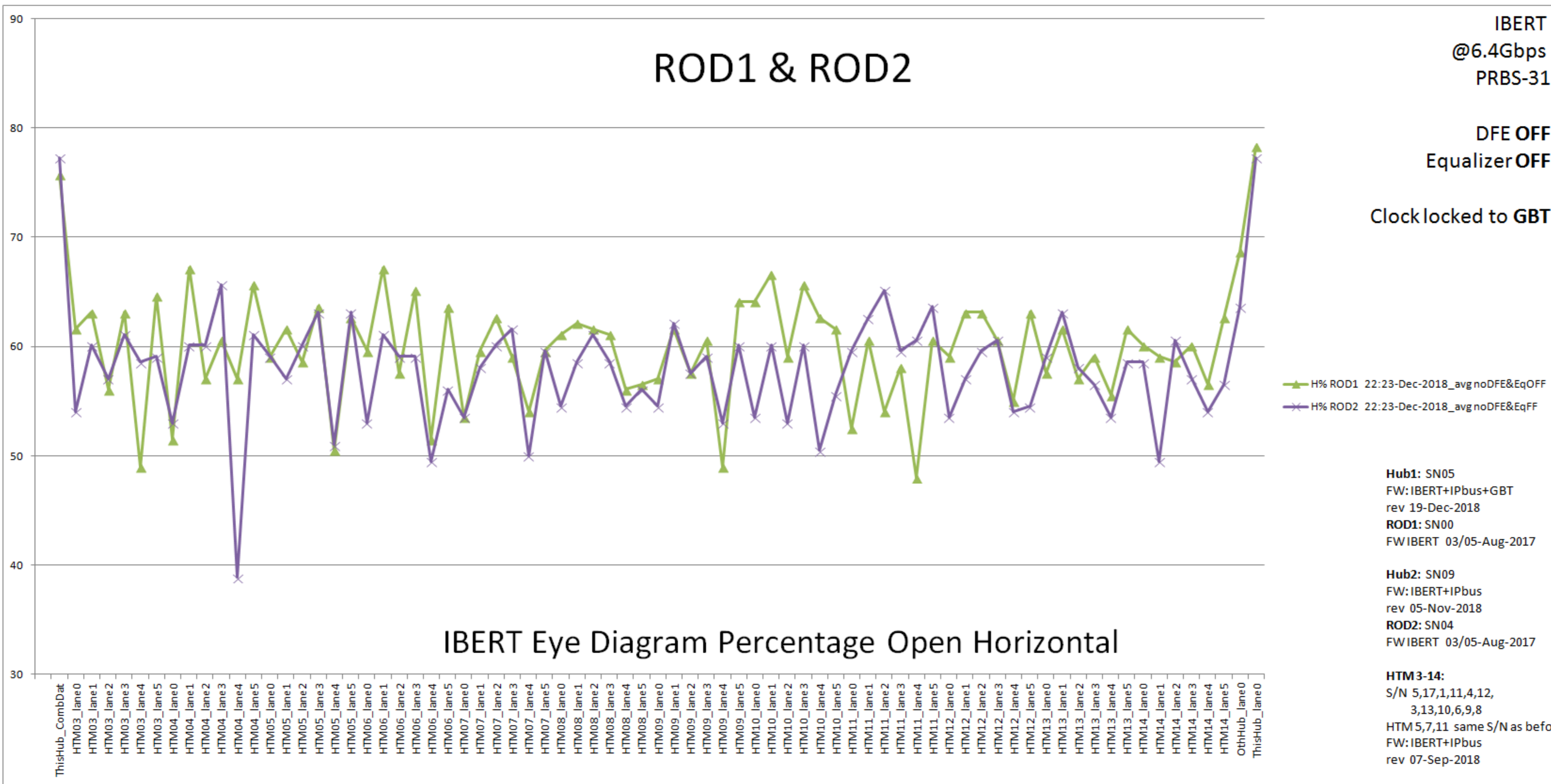
IBERT Eye Diagram Open Counts

# ROD1 & ROD2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



IBERT Eye Diagram Percentage Open Horizontal

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FWIBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FWIBERT 03/05-Aug-2017

**HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

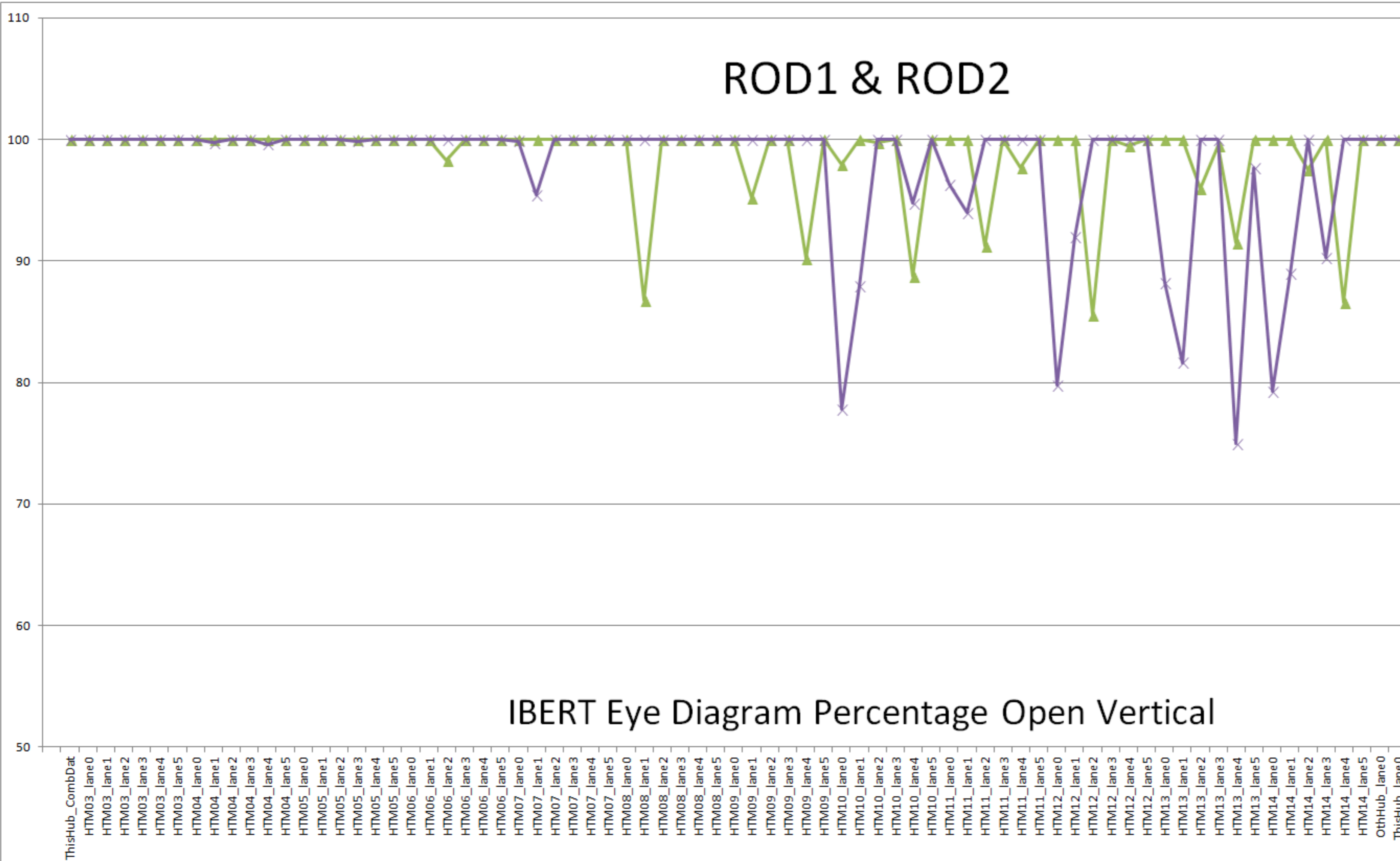


# ROD1 & ROD2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



V% ROD1 22:23-Dec-2018\_avg noDFE&EqOFF  
V% ROD2 22:23-Dec-2018\_avg noDFE&EqFF

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FWIBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FWIBERT 03/05-Aug-2017

**HTM 3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM 5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

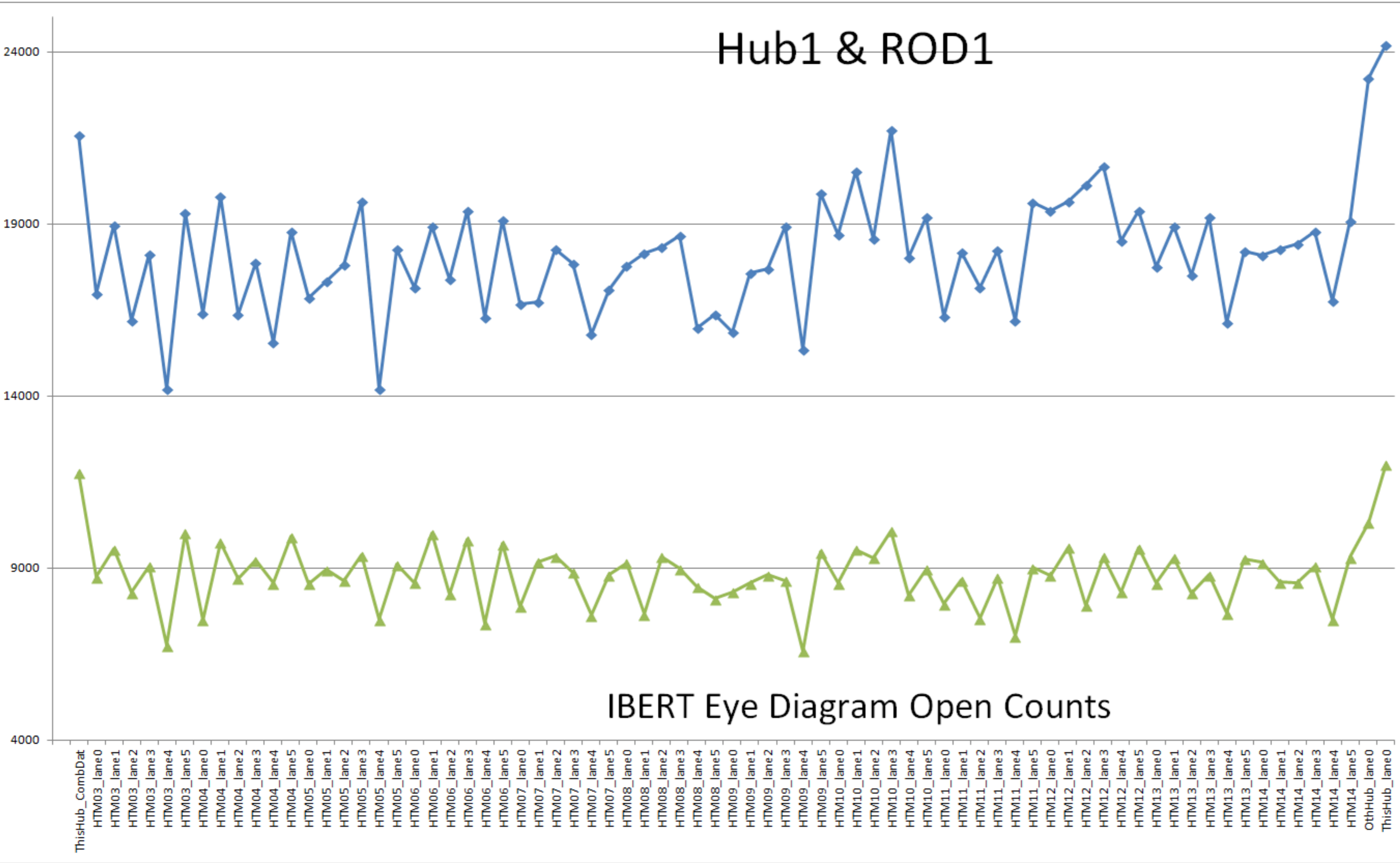
IBERT Eye Diagram Percentage Open Vertical

# Hub1 & ROD1

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



O HUB1 22:23-Dec-2018\_avg noDFE&EqOFF  
O ROD1 22:23-Dec-2018\_avg noDFE&EqOFF

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FW: IBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FW: IBERT 03/05-Aug-2017

**HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

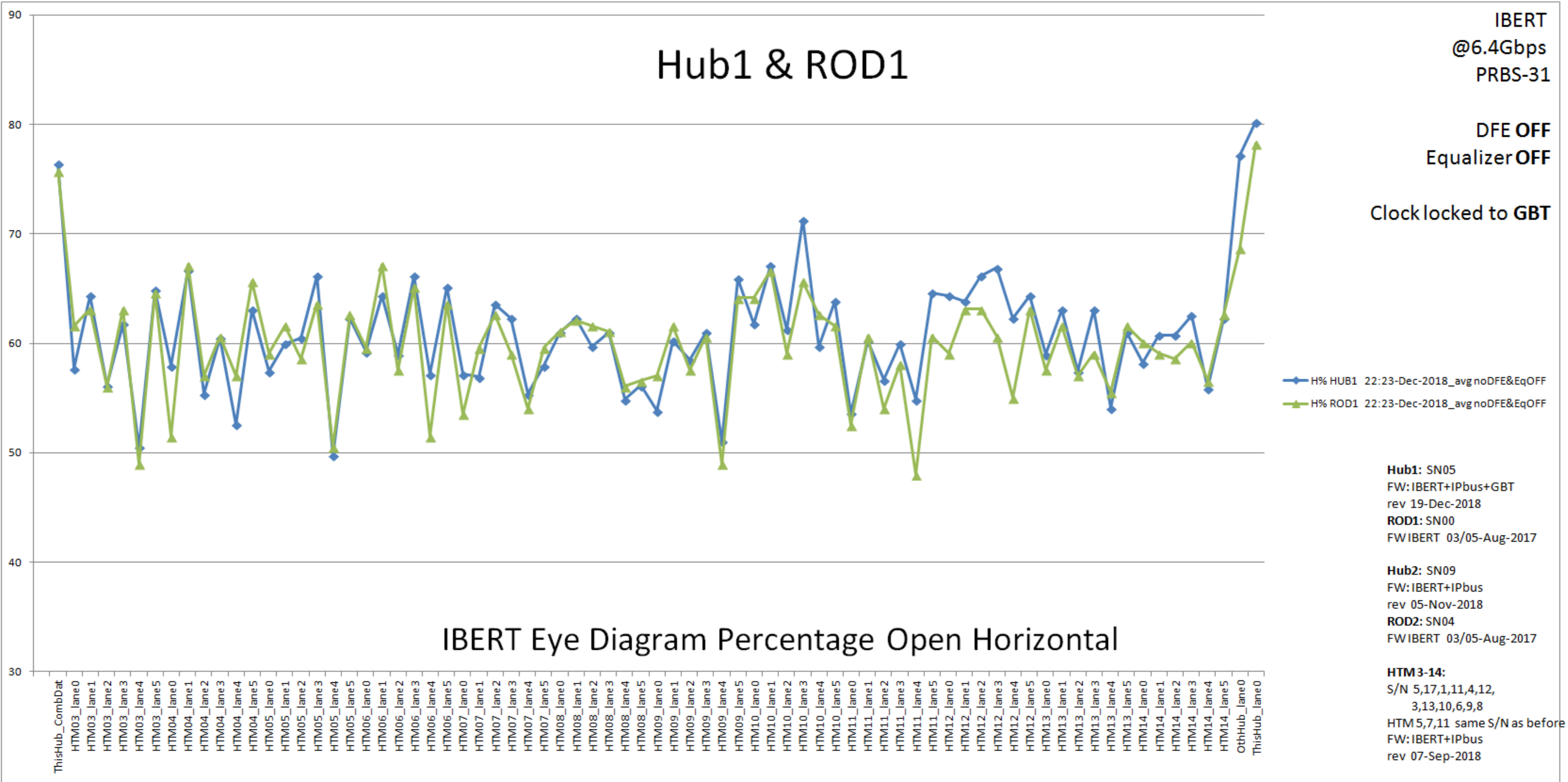
## IBERT Eye Diagram Open Counts

# Hub1 & ROD1

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



## IBERT Eye Diagram Percentage Open Horizontal

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FWIBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FWIBERT 03/05-Aug-2017

**HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

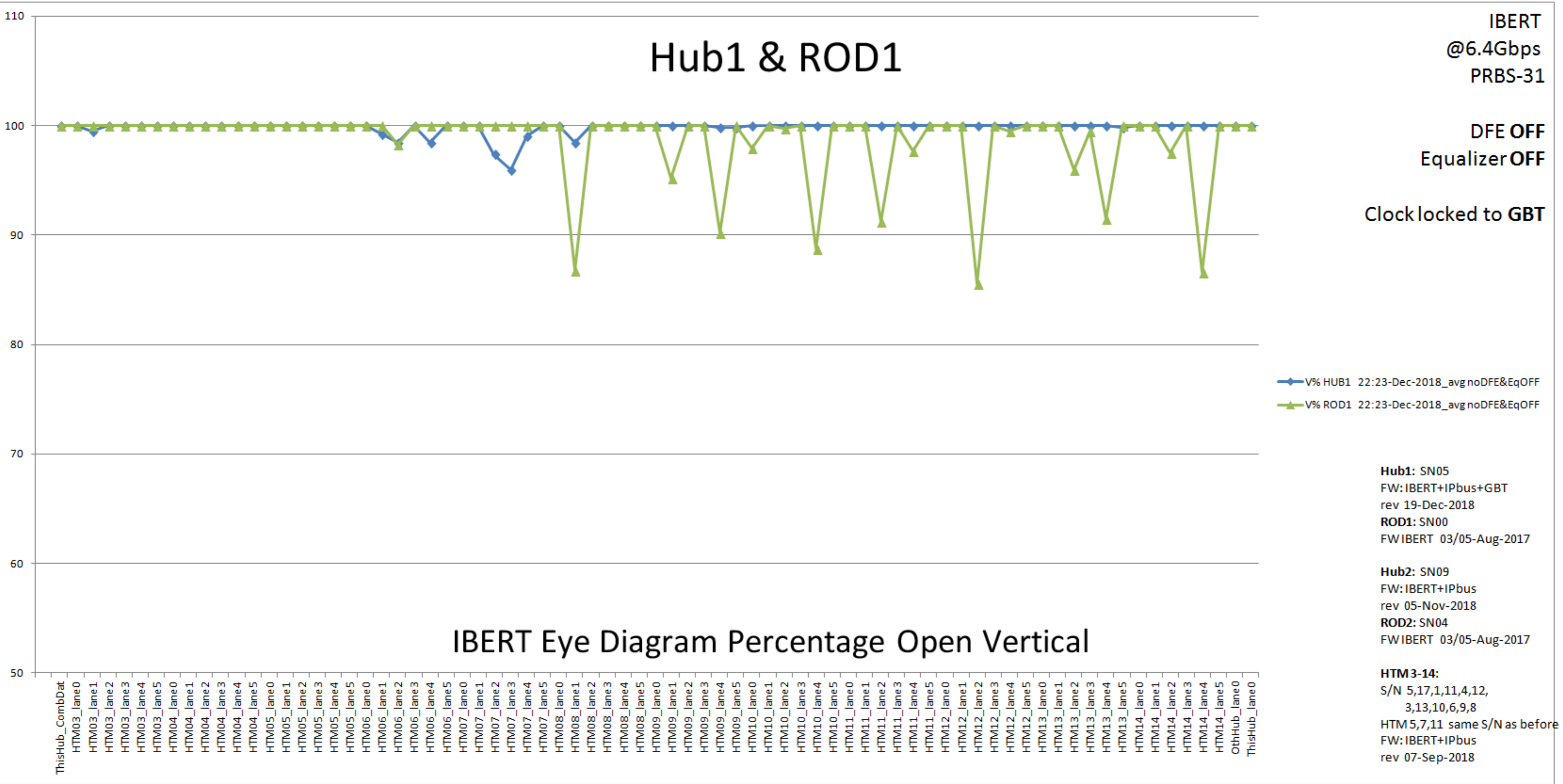


# Hub1 & ROD1

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



## IBERT Eye Diagram Percentage Open Vertical

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FW: IBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FW: IBERT 03/05-Aug-2017

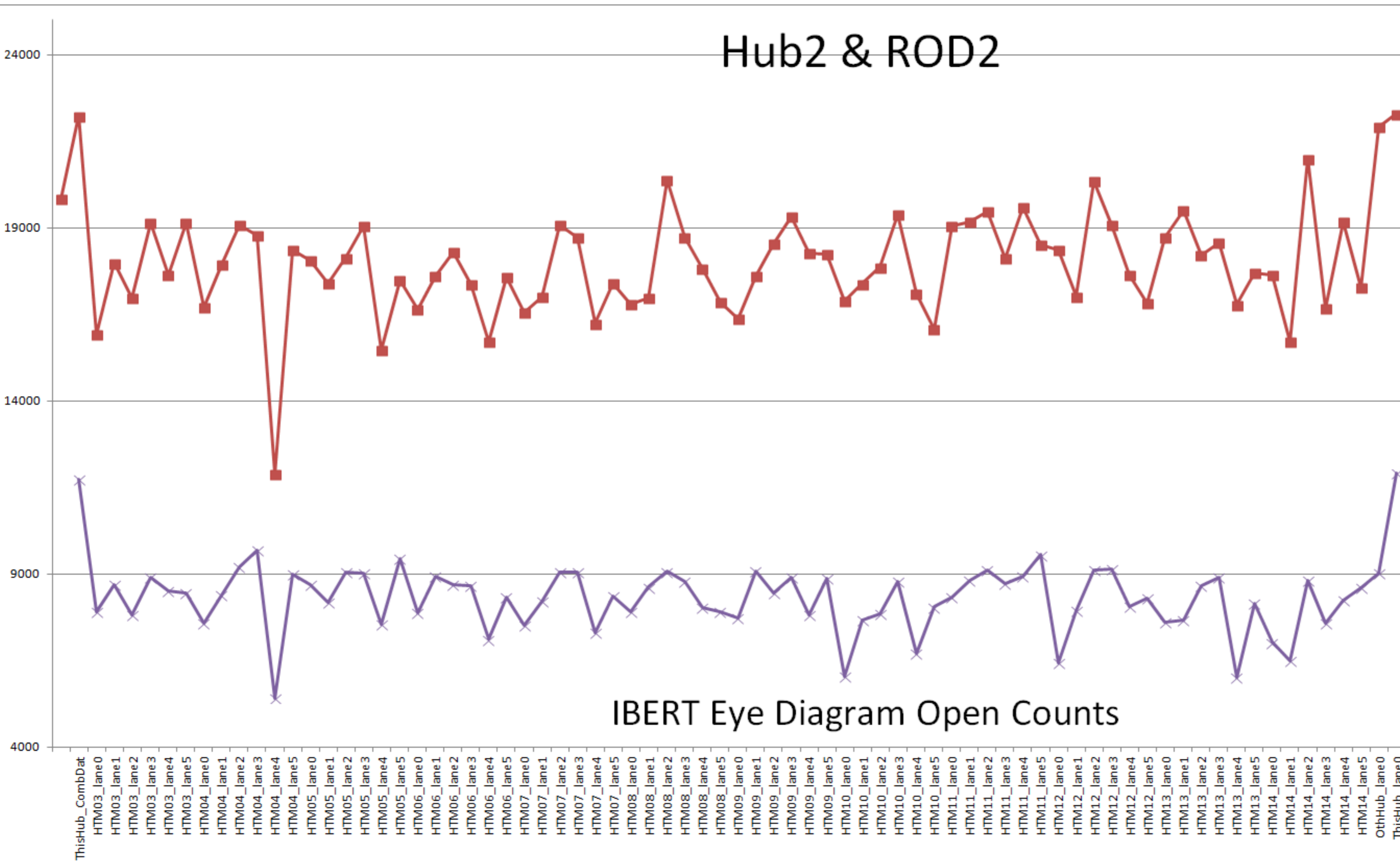
**HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

# Hub2 & ROD2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clocklocked to GBT



O HUB2 22:23-Dec-2018\_avg noDFE&EqOFF  
O ROD2 22:23-Dec-2018\_avg noDFE&EqFF

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FWIBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FWIBERT 03/05-Aug-2017

**HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

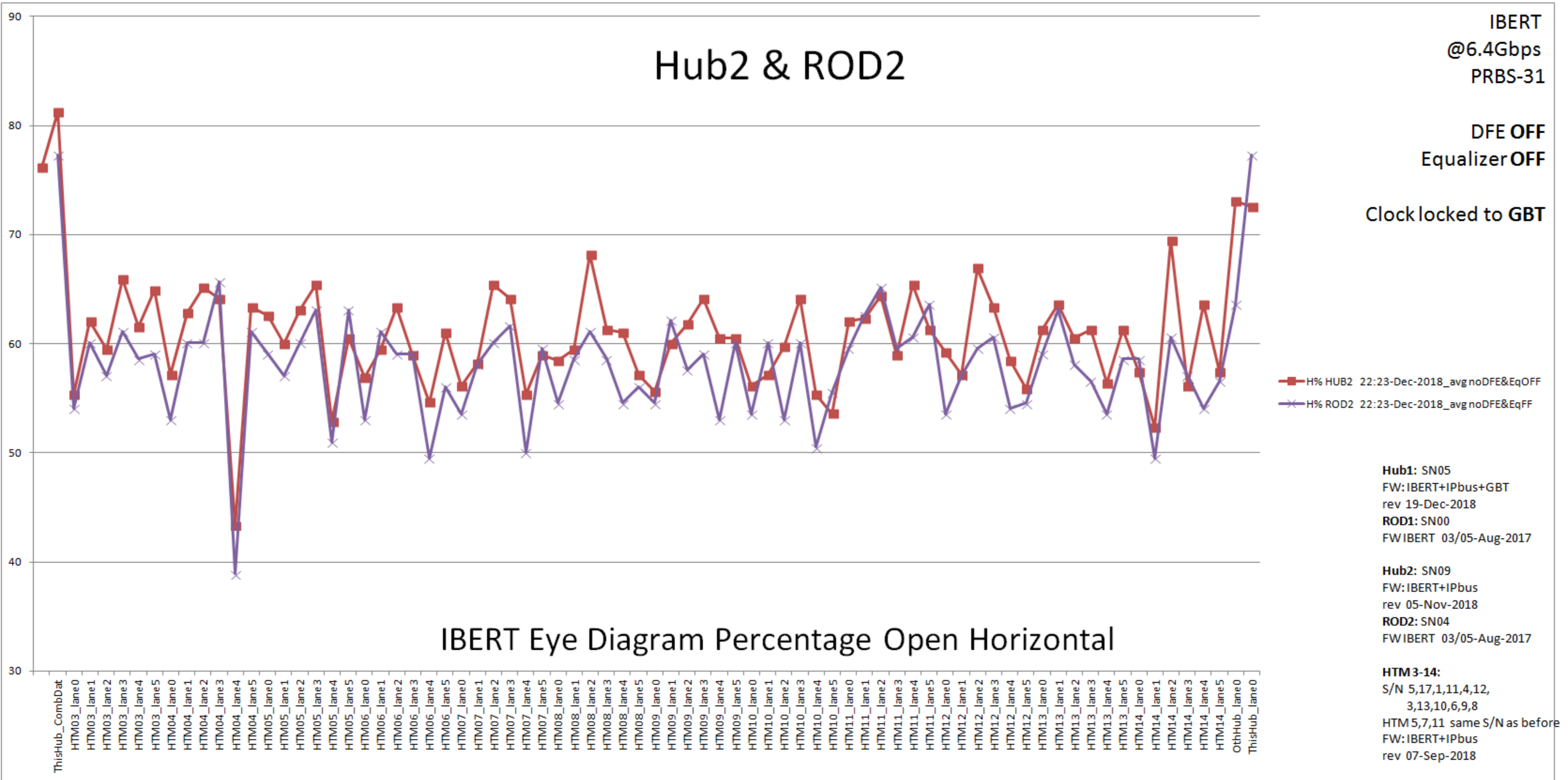
IBERT Eye Diagram Open Counts

# Hub2 & ROD2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



IBERT Eye Diagram Percentage Open Horizontal

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FWIBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FWIBERT 03/05-Aug-2017

**HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018

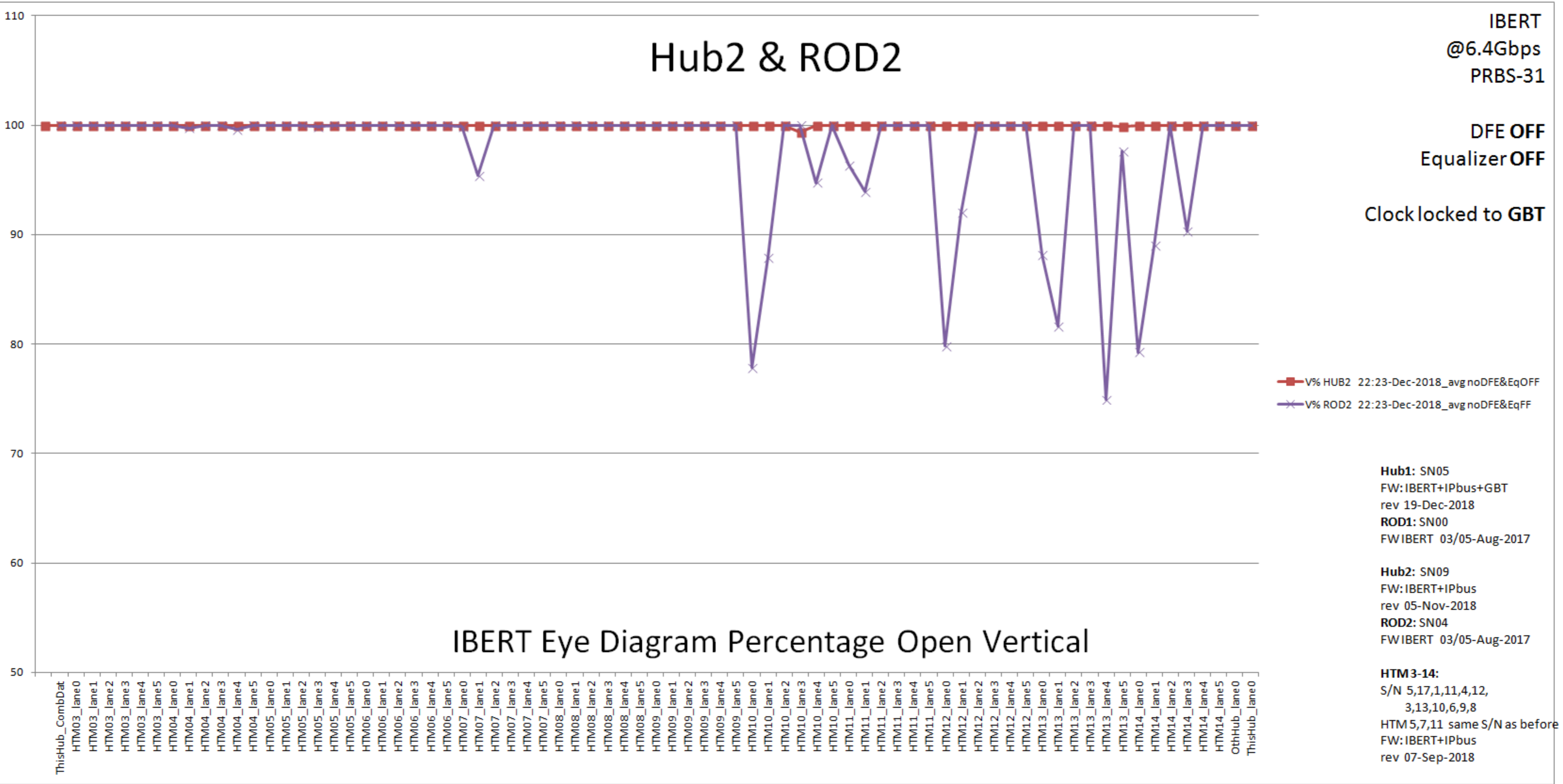


# Hub2 & ROD2

IBERT  
@6.4Gbps  
PRBS-31

DFE OFF  
Equalizer OFF

Clock locked to GBT



IBERT Eye Diagram Percentage Open Vertical

**Hub1:** SN05  
FW: IBERT+IPbus+GBT  
rev 19-Dec-2018  
**ROD1:** SN00  
FW: IBERT 03/05-Aug-2017

**Hub2:** SN09  
FW: IBERT+IPbus  
rev 05-Nov-2018  
**ROD2:** SN04  
FW: IBERT 03/05-Aug-2017

**HTM3-14:**  
S/N 5,17,1,11,4,12,  
3,13,10,6,9,8  
HTM5,7,11 same S/N as before  
FW: IBERT+IPbus  
rev 07-Sep-2018