

# **DBBC SYSTEMS DEPLOYMENT: STATUS January 2023**

## **DBBC2**

**DBBC1 Noto (later updated to DBBC2)**

**DBBC1 Wettzell1 (later updated to DBBC2)**

**DBBC1 Wettzell2 (later updated to DBBC2)**

**DBBC1 Wettzell3 (later updated to DBBC2)**

**DBBC2 Effelsberg**

**DBBC2 Yebes**

**DBBC2 Auscope1 (Hobart12M)**

**DBBC2 Onsala1**

**DBBC2 SRT**

**DBBC2 Pico Veleta**

**DBBC2 APEX**

**DBBC2 Wark12M**

**DBBC2 Auscope2 (Kath12M)**

**DBBC2 Auscope3 (Yarr12M)**

**DBBC2 Torun**

**DBBC2 Irbene1**

**DBBC2 Hartebeesthoek1**

**DBBC2 Hartebeesthoek2**

**DBBC2 Auscope4 (Ceduna)**

**DBBC2 Medicina**

**DBBC2 Metsahovi**

**DBBC2 Auscope5 (Hobart26)**

**DBBC2 Tianma**

**DBBC2 Warkworth2 (New Zealand)**

**DBBC2 AVN (Ghana)**

**DBBC2 Ny Alesund**

**DBBC2 Onsala2**

**DBBC2 Yebes2**

**DBBC2 Jodrell Bank**

**DBBC2 Yebes3**

**DBBC2 Wettzell4**

**DBBC2 Westerbork**

**DBBC2 Warkworth3 (New Zealand)**

**DBBC2 Shanghai**

**DBBC2 Urumqi**

**DBBC2 SRT2**

**DBBC2 Irbene2**

**DBBC2 Kunming**

**DBBC2 NyAlesund2**

**DBBC2 FAST**

## DBBC3

DBBC3-4L4H Upgrade APEX

DBBC3-4L4H Upgrade PicoVeleta

DBBC3-6L6H Hobart

DBBC3-2L2H Yebes

DBBC3-8L8H Onsala1

DBBC3-8L8H Onsala2

DBBC3-8L8H Ny Alesund1

DBBC3-8L8H Ny Alesund2

DBBC3-2L2H Effelsberg

DBBC3-4L4H Sejong (NGII)

DBBC3-6L6H Katherine

DBBC3-6L6H Yarragdee

DBBC3-8L8H Wettzell1

DBBC3-8L8H Shanghai1

**DBBC3-8L8H Methsahovi (FGRI)**

**DBBC3-2L2H Hamburg (BRASS Project)**

**DBBC3-4L8H Torun**

**DBBC3-2L2H Bonn**

**DBBC3-2L2H Wetzell2**

**DBBC3-4L4H Shanghai2**

**DBBC3-8L8H Wetzell3**

**DBBC3-2L2H Ishioka1**

**DBBC3-8L8H Hartebeesthoek**

**DBBC3-2L2H Urumqi**

**DBBC3-8L8H Thailand**

**DBBC3-6L6H SRT**

**DBBC3-6L6H Medicina**

**DBBC3-6L6H Noto**

**DBBC3-6L6H Metsahovi (AALTO)**

**DBBC3-2L2H Onsala3**

**DBBC3-8L8H Santa Maria**

**DBBC3-4L4H NTSC (Xi'an - China)**

**DBBC3-8L8H Matera**

**DBBC3-8L8H Shanghai3**

**DBBC3-8L8H Shanghai4**

**DBBC3-8L8H Shanghai5**

***DBBC3-8L8H Ishioka2 (under construction)***

***DBBC3-2L2H JB (under construction)***

***DBBC3-8L8H Shanghai6 (under construction)***

***DBBC3-8L8H Shanghai7 (under construction)***

***DBBC3-8L8H Shanghai8 (under construction)***

***DBBC3-2L2H Wetzell4 (under construction)***

## DBBC2 LATEST FIRMWARE STATUS

### ➤ DDC v107

Input bwd: 512 MHz (in the range 0-3,5 GHz)

4 bbc/Core2

Output bwd: 64 – 32 – 16 – 8 – 4 – 2 MHz

U & L (8 channel)

### ➤ DDC v108 (general v107 revision and bug corrections)

Input bwd: 512 MHz (in the range 0-3,5 GHz)

4 bbc/Core2

Output bwd: 64 – 32 – 16 – 8 – 4 – 2 MHz

U & L (8 channel)

## DBBC3 LATEST FIRMWARE STATUS

### ➤ DSC v120 (Full broad band)

Input bwd: 4096 MHz (in the range 0-15 GHz)

1 Band/Core3H

Output bwd: 4096 MHz

U / L (depending on the GCoMo settings)

DBBC3-2L2H: 32 Gbps

DBBC3-4L4H: 64 Gbps

DBBC3-6L6H: 96 Gbps

DBBC3-8L8H: 128 Gbps



➤ *OCT\_S\_v110 (Flexible broad single band)*

**Input bwd: 4096 MHz (in the range 0-15 GHz)**

**1 bands/Core3H**

**Output bwd: 2048 – 1024 – 512 MHz**

**U / L (depending on the GCoMo settings)**

**DBBC3-2L2H: 16 Gbps**

**DBBC3-4L4H: 32 Gbps**

**DBBC3-6L6H: 48 Gbps**

**DBBC3-8L8H: 64 Gbps**

➤ *OCT\_D\_v120 (Flexible broad double band)*

**Input bwd: 4096 MHz (in the range 0-15 GHz)**

**2 bands/Core3H**

**Output bwd: 2048 – 1024 – 512 MHz - 256 MHz**

**U / L (depending on the GCoMo setting)**

**DBBC3-2L2H: 32 Gbps**

**DBBC3-4L4H: 64 Gbps**

**DBBC3-6L6H: 96 Gbps**

**DBBC3-8L8H: 128 Gbps**

➤ DDC v125 V (VGOS tunable)

**Input bwd: 4096 MHz/IF (in the range 0-15 GHz)**

**8 bbc/Core3H**

**DBBC3-2L2H 16 bbc**

**DBBC3-4L4H 32 bbc**

**DBBC3-6L6H 48 bbc**

**DBBC3-8L8H 64 bbc**

**Output bwd: 32 MHz**

**U & L**

**Multicast packets**

**DBBC3-2L2H: input 8192 MHz, output 4 Gbps**

**DBBC3-4L4H: input 16384 MHz, output 8 Gbps**

**DBBC3-6L6H: input 24576 MHz, output 12 Gbps**

**DBBC3-8L8H: input 32768 MHz, output 16 Gbps**

➤ DDC v126 U (Unified)

Input bwd: 4096 MHz/IF (in the range 0-15 GHz)

16 bbc/Core3H

DBBC3-2L2H 32 bbc

DBBC3-4L4H 64 bbc

DBBC3-6L6H 96 bbc

DBBC3-8L8H 128 bbc

Output bwd: 128 – 64 – 32 – 16 – 8 - 4 – 2 MHz <- improved bwd  
U & L

Multicast packets

DBBC3-2L2H: input 8192 MHz, output 32 Gbps

DBBC3-4L4H: input 16384 MHz , output 64 Gbps

DBBC3-6L6H: input 24576 MHz, output 96 Gbps

DBBC3-8L8H: input 32768 MHz, output 128 Gbps

➤ DDC v126 E (EVN)

Input bwd: 4096 MHz/IF (in the range 0-15 GHz)

8 bbc/Core3H

DBBC3-2L2H 16 bbc

DBBC3-4L4H 32 bbc

DBBC3-6L6H 48 bbc

DBBC3-8L8H 64 bbc

Output bwd: 128 – 64 – 32 – 16 – 8 - 4 – 2 MHz <- improved bwd, less power  
U & L

Multicast packets

DBBC3-2L2H: input 8192 MHz, output 16 Gbps

DBBC3-4L4H: input 16384 MHz , output 32 Gbps

DBBC3-6L6H: input 24576 MHz, output 48 Gbps

DBBC3-8L8H: input 32768 MHz, output 64 Gbps

# FIRMWARE UNDER DEVELOPMENT

## DDC v126 P (Polarization conversion - Linear to Circular)

Input bwd: 2048 MHz/IF (in the range 0-15 GHz)

8 bbc/Core3H

DBBC3-2L2H 16 bbc

DBBC3-4L4H 32 bbc

DBBC3-6L6H 48 bbc

DBBC3-8L8H 64 bbc

Output bwd: 128 – 64 – 32 – 16 – 8 - 4 – 2 MHz

U & L

Multicast packets

DBBC3-2L2H: input 8192 MHz, output 16 Gbps

DBBC3-4L4H: input 16384 MHz , output 32 Gbps

DBBC3-6L6H: input 24576 MHz, output 48 Gbps

DBBC3-8L8H: input 32768 MHz, output 64 Gbps