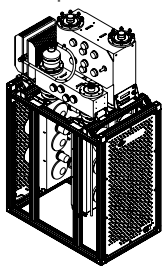
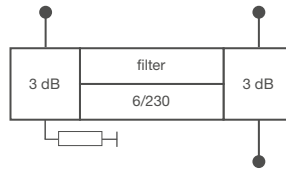
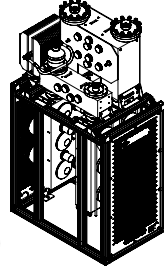


## CCS UHF CIB Combiners

- **CCS** compact design
- Integrated mask filters for DTV
- Adjacent channels operation
- For 6, 7 and 8 MHz channel bandwidth
- Temperature compensated
- Tuneable within the whole UHF range
- Liquid cooled filters



BN 576076A2080



BN 576077A2080

Part Number Cooling	BN 576075A2080 Liquid Cooling	BN 576076A2080 Liquid Cooling	BN 576077A2080 Liquid Cooling	BN 576078A2080 Liquid Cooling
Frequency range	470 - 790 MHz			
Channel spacing	≥ 0			
<b>Narrowband input</b>	4 1/2" EIA male			
Filter type integrated cavities/size	<b>6/230 ≡ BN 616669</b>			
Temperature stability	≤ 2 kHz / K			
Harmonics attenuation	≥ 50 dB for f ≤ 800 MHz			
DTV mask filtering	DVB-T @ 8 MHz ( $\dot{U}/U_{rms}=13$ dB)	ISDB-T @ 6 MHz ( $\dot{U}/U_{rms}=13$ dB)	ATSC 1.0 @ 6 MHz ( $\dot{U}/U_{rms}=11$ dB) 470 - 650 MHz	
Average input power The input power of liquid cooled filters must be reduced if installed more than 500 m above sea level.	≤ <b>36 kW</b> @ 0 - 500 m ≤ <b>32 kW</b> @ 1400 m ≤ <b>28 kW</b> @ 2200 m ≤ <b>24 kW</b> @ 3000 m ≤ <b>20 kW</b> @ 3800 m	≤ <b>30 kW</b> @ 0 - 500 m ≤ <b>28 kW</b> @ 1000 m ≤ <b>24 kW</b> @ 2000 m ≤ <b>20 kW</b> @ 3000 m ≤ <b>16 kW</b> @ 4000 m	≤ <b>40 kW</b> @ 0 - 500 m <sup>1</sup> ≤ <b>36 kW</b> @ 1200 m <sup>1</sup> ≤ <b>32 kW</b> @ 2000 m <sup>1</sup> ≤ <b>28 kW</b> @ 2600 m <sup>1</sup> ≤ <b>24 kW</b> @ 3300 m <sup>1</sup> ≤ <b>20 kW</b> @ 4000 m <sup>1</sup> AS6308	
Tuning instruction	AS6303		AS6365	
Insertion loss & mask filtering (alternative tuning on request)	470 MHz 790 MHz	470 MHz 790 MHz	470 MHz 790 MHz	470 MHz 650 MHz
$f_0$	≤ 0.30 dB ≤ 0.40 dB	$f_0$ ≤ 0.40 dB ≤ 0.45 dB	$f_0$ ≤ 0.45 dB ≤ 0.50 dB	$f_0$ ≤ 0.45 dB ≤ 0.50 dB
$f_0 \pm 3.805$	≤ 0.75 dB ≤ 0.90 dB	$f_0 \pm 2.79$ ≤ 0.85 dB ≤ 1.00 dB	$f_0 \pm 2.69$ ≤ 0.80 dB ≤ 0.80 dB	$f_0 \pm 2.69$ ≤ 0.80 dB ≤ 0.80 dB
$f_0 \pm 3.885$	≤ 0.85 dB ≤ 1.00 dB	$f_0 \pm 3.0$ ≥ 2 dB	$f_0 \pm 3.5$ ≥ 3 dB	$f_0 \pm 3.5$ ≥ 3 dB
$f_0 \pm 4.2$	≥ 4 dB	$f_0 \pm 3.15$ ≥ 8 dB	$f_0 \pm 4$ ≥ 8 dB	$f_0 \pm 4$ ≥ 8 dB
$f_0 \pm 6$	≥ 20 dB	$f_0 \pm 4.5$ ≥ 23 dB	$f_0 \pm 6$ ≥ 30 dB	$f_0 \pm 6$ ≥ 30 dB
$f_0 \pm 12$	≥ 40 dB	$f_0 \pm 9$ ≥ 48 dB	$f_0 \pm 9$ ≥ 65 dB	$f_0 \pm 9$ ≥ 65 dB
	$f_0 \pm 15$ ≥ 50 dB			
Group delay variation	$\Delta\tau \leq 350$ ns		$\Delta\tau \leq 500$ ns	
<b>Wideband input</b>	4 1/2" EIA male	52-120 BT male	6 1/8" EIA male	6 1/8" EIA male
Average input power	≤ <b>33 kW</b>	≤ <b>60 kW</b>	≤ <b>60 kW</b>	≤ <b>80 kW</b>
DTV mask filtering	No			
Insertion loss	≤ 0.1 dB (non adjacent)			
<b>Output</b>	4 1/2" EIA male	52-120 BT male	6 1/8" EIA male	6 1/8" EIA male
Peak output voltage	≤ 15.5 kV	≤ 19.5 kV	≤ 24 kV	≤ 24 kV
Average output power	-	≤ 60 kW	≤ 78 kW	≤ 78 kW
Isolation between inputs	≥ 35 dB			
VSWR (one WB channel)	≤ 1.06			
Dimensions (L x W x H) mm	900 x 570 x 1400		900 x 570 x 1600	
Weight	≈ 190 kg	≈ 240 kg	≈ 250 kg	≈ 260 kg
Liquid cooling interface	Stainless steel tube 12 x 1 mm unflanged ending straight at the bottom			
Environmental conditions	For limitations see „Environmental Conditions for Broadcast Products“.			

<sup>1</sup> P/Pmax > 90 %: Temperature stability ≤ 3 kHz / K