

# Host Broadcasting Technical Bulletin

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## Signal standards and signal distribution/management

All International TV Signals produced at the venues will be made available for distribution as HD SDI VandA packages.

**The Host standard will be HD-SDI 1080i/50.**

International TV video signals within the VandA package will be synchronised and timed. International TV sound signals will be embedded into the SDI stream.

Radio package includes International Radio Sound from all venues and will be delivered as stereo analogue line level @+6dBu or AES/EBU via balanced audio pairs terminated on XLR or Coax 75Ω terminated on BNC.

Please note that the reference levels are defined as +6dBu corresponds to -9dBfs.

Intercom will be delivered as 4-wire circuit, line level @+6dBu via balanced audio pairs terminated on XLR.

Video reference will be provided as BB or TLS upon request, Timecode as analog line level @+6dBu.

Table of selectable signals:

- Plenary 1 PGM clean
- Plenary 1 PGM dirty
- Plenary 1 Data Feed
- Plenary 1 Dome Cameras
- Plenary 2 PGM clean
- Plenary 2 PGM dirty
- Plenary 2 Data Feed
- Plenary 2 Dome Cameras
- Press Conference 1 PGM clean
- Press Conference 1 Data Feed
- Press Conference 2 PGM clean
- Press Conference 2 Data Feed
- Press Conference 3 PGM clean
- Press Conference 3 Data Feed
- Meeting Room IX PGM clean
- Meeting Room IX Data Feed
- Meeting Room XI PGM clean
- Meeting Room XI Data Feed
- Special Event 1 PGM clean
- Special Event 2 PGM clean
- Info Screen 1
- Info Screen 2
- Playout Channel, tba
- Multiviewer showing all venue clean feeds
- Color Bars with EBU A/V Sync

## **Standards conversion, analog or SD-SDI Video and power system**

For those Broadcasters who need other frame rates than HD-SDI 1080i/50 standards converters will be provided for the main PGM clean feeds ( Plenary 1, Plenary 2, Press Conference 1, Press Conference 2, Press Conference 3, Meeting Room Ix, Meeting Room XI).

Down Conversion to SD-SDI and CVBS (PAL and NTSC) will be provided upon special request.

Broadcasters are requested to specify required signal standard as soon as possible, latest Sept. 29<sup>th</sup>, 2017.

## **Power system**

The local power standard is 230V~ @ 50Hz single phase and 400V~ @ 50Hz triple phase with 230V~ between phase and neutral, 400V~ between phases.

Power outlets will be described hereafter in relevant sections.

## **Internet, Telephone & Fax Services**

Dedicated broadband data links can be provided upon special request.

Broadcasters are asked to send their request for quoting and booking to:

Dominik Röhrig  
[droehrig@vagedes-schmid.de](mailto:droehrig@vagedes-schmid.de)

## **Media Compound / Satellite Farm for OB vans and SNG Uplinks**

Limited space will be available for broadcast vehicles and related technical facilities.

Service includes:

- Access to technical power
- Access to telecommunication services at SNG MCR2 Patchroom
- Cable pathway to the MCR and Media Center
- MCR sub star Container for signal exchange between MCR and Satellite Farm

Note:

- Submission should include dimensions of all vehicles including extended size, open door span.
- Allocation of parking position will be conducted using the information provided by the Broadcaster.

## **Compound Power for OB Vans and SNG Uplinks**

Broadcasters may submit for power hook-ups in the compound for any of the following items:

- Three phase 16A, 32A, 63A either technical (full backup)
- Single phase 16A, 32A either technical (full backup)

All power hook-ups will be provided at:

- Three phase 16A\*, 32A, 63A CEE 3P+N+E (IEC 60309-2), \*protected with RCBO



- Single phase 16A\*, 32A CEE 2P+E (IEC 60309-2), \*protected with RCBO



Broadcasters are requested to specify required power sockets as soon as possible, latest Sept. 29<sup>th</sup>, 2017.

### Connectivity to the MCR

Fiber connections will be established between WCCB, the MCR and the Media Compound. Video, Audio and Intercom signals will be available at the MCR sub star located in the center of the SNG compound. Maximum distance between MCR sub star and OB Van positions will be 65 meters.

### Media Center in BULA Zone

Dedicated cabins are designed for production or office use within the Media Center.

Two different types of cabins are available: **workspaces** and **cubicles**

Service includes:

- Necessary raw space for **workspaces** (approx. 2 x 2 meters)
- Basic lighting
- Common HVAC (20-23°C)
- Dedicated power outlet (technical power)
- Cable entry points
- Furniture (1 table, 3 chairs)
- Necessary raw space **for cubicles**
- Basic lighting
- Common HVAC (20-23°C)
- Dedicated power outlet (technical power)

- Cable entry points
- Furniture (3 tables, 9 chairs)

### Power for workspaces and cubicles

All workstations will be equipped with:

- Single phase 16A technical power, consumption limited to 0,5 kW  
Please note: No other than broadcast equipment shall be connected to technical power outlets!

All Cubicles will be equipped with:

- Three phase 16A technical power (full backup), consumption limited to 9 kW  
Please note: No other than broadcast equipment shall be connected to technical power outlets!  
Broadcasters are requested to take care of equal load balance across the phases.

All technical power hook-ups will be provided as:



- Three phase 16A CEE 3P+N+E (IEC 60309-2), protected with RCBO
- Single phase 16A CEE7/4, protected with RCBO



### Connectivity to the MCR

All International TV Signals produced at the venues will be made available for distribution as HD SDI VandA packages.

International TV video signals within the VandA package will be synchronised and timed. International TV sound signals will be embedded into the SDI stream. The VandA package will be delivered via a set of cables from the MCR to the Broadcasters unilateral area, carrying feeds as listed below. Radio package includes International Radio Sound from all venues and will be delivered from the MCR to the Broadcasters unilateral area as stereo analogue line level @+6dBu or AES/EBU via balanced audio pairs terminated on XLR or Coax 75Ω terminated on BNC.

The following sets of signals will be delivered to workspaces and cubicles as follows:

Workspaces for TV

- 1 selectable HD-SDI with embedded Audio to feed the 32" monitor

- 1 selectable HD-SDI with embedded Audio for recording
- Remote access to the MCR Routing Matrix via vsm control panel

#### Workspaces for Radio

- 1 selectable HD-SDI with embedded Audio to feed the 32" monitor
- 2 pairs of selectable Audio for recording
- Remote access to the MCR Routing Matrix via vsm control panel

#### Cubicles for TV

- 2 selectable HD-SDI with embedded Audio to feed the 32" monitors
- 5 selectable HD-SDI with embedded Audio for recording
- Remote access to the MCR Routing Matrix via vsm control panel
- Black Burst and Timecode

#### Cubicles for Press Agencies

- 2 selectable HD-SDI with embedded Audio to feed the 32" monitors
- 1 selectable HD-SDI with embedded Audio for recording
- Remote access to the MCR Routing Matrix via vsm control panel
- Black Burst and Timecode

Please note: Broadcasters need to indicate drop point where service shall be provided within their space.

## Press Center in BONN Zone

#### Cubicles for TV

- 2 selectable HD-SDI with embedded Audio to feed the 32" monitors
- 5 selectable HD-SDI with embedded Audio for recording
- Remote access to the MCR Routing Matrix via vsm control panel
- Black Burst and Timecode

#### Cubicles for Press Agencies

- 2 selectable HD-SDI with embedded Audio to feed the 32" monitors
- 1 selectable HD-SDI with embedded Audio for recording
- Remote access to the MCR Routing Matrix via vsm control panel
- Black Burst and Timecode

## Stand-Up Positions in WCCB

A limited number of 7 Announce Positions for live reports or live presentations will be available at the WCCB Entrance Hall.

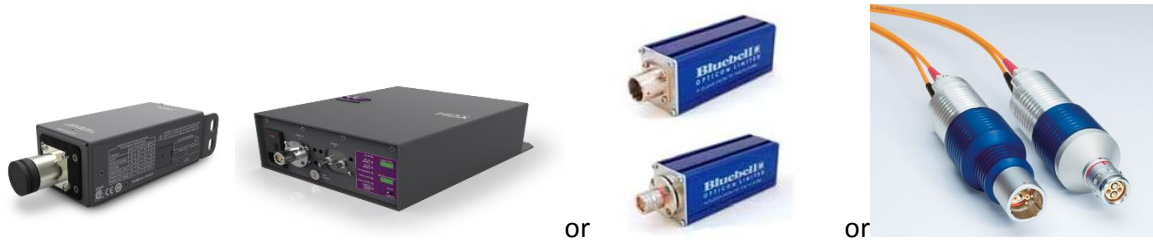
#### Service includes:

- Unilateral production area (approx.. 2 by 3 meters)
- Access to technical power
- Standard operational lighting kit (tunable LED lights with barndoors, truss- mounted)
- Connectivity VandA between Announce Position and MCR
- Connectivity between MCR and SNG compound
- Duplex singlemode fiber cable\* between Stand-Up Position and SNG compound

#### Service does not include:

- Furniture
- Video- or Audio production equipment
- Intercom equipment

\*Due to the long distance between the WCCB and the SNG Media Compound standard SMPTE 311 camera cables will not be suitable. There will be a sufficient quantity of single mode fibers available to be used for camera extensions by means of SMPTE Hybrid Elimination Devices:



Please note: Broadcasters are requested to name the camera models in advance in order to provide the appropriate devices.

## Stand-Up-Positions in BULA Zone

A limited number of Announce Positions for live reports will be available at the BULA Zone.

Service includes:

- Unilateral production area (approx.. 2 by 3 meters)
- Access to technical power
- Standard operational lighting kit (tunable LED lights with barndoors, truss- mounted)
- Connectivity VandA between Announce Position and MCR
- Connectivity between MCR and SNG compound

Service does not include:

- Dedicated camera cables between Stand-Up Position and SNG Media Compound
- Furniture
- Video- or Audio production equipment
- Intercom

Applications for Stand Up positions must be made to the IBC Manager, Tim Davis, [davis.tim52@gmail.com](mailto:davis.tim52@gmail.com). The allocation of the Stand up positions will be made by the IBC Manager.

## Use of Wireless Equipment

Due to the extensive use of wireless equipment it is planned to coordinate the use of wireless microphones,

This is to avoid RF interference, intermodulation, distortion and similar, whilst using In-Ear transmitters and radio talkback equipment.

The technical service suppliers will provide a list of all frequencies to those accredited broadcasters who plan to use wireless equipment.

Broadcasters will have to apply for frequencies and present written approval upon request on arrival at either the BULA zone or the BONN zone.

All equipment that has not been approved will have to be turned off.

In this regard please contact Gottfried Duren giving a description of your intended usage of wireless equipment.

Gottfried Düren

[contact@gd-mediaconsult.de](mailto:contact@gd-mediaconsult.de)

## Additional services

The following services can be provided upon request:

- ISDN Codecs for Intercom, mix minus
- 4-wire Intercom circuits from cubicles to SNG Sat Farm
- 4-wire Intercom circuits from Stand-Up Positions to SNG Sat Farm
- Additional copper/fiber tie lines
- Stand-Up production kit comprising camera chain, tripod, fluid head, microphone and earpiece
- SMPTE Hybrid Elimination Devices
- Camera Cables (SMPTE 311 with LEMO 3K.93 connectors FUW/PUW \*
- Camera Cables (Triax 8mm with Damar+Hagen connectors) \* / \*\*
- HD-SDI Monitors 24"
- HD-SDI Recorders, such as Sony PDW-F1600 for XDCAM 50Mbit/sec
- Audio Processing
- Video Editing

\*Camera Cables only between dedicated position in Sat Farm and Stand Up position in BULA Media Center

\*\* Broadcasters need to specify type of Triax connectors in order to supply suitable adaptors.

Please note: Broadcasters are asked to send their request for quoting and booking to:

Gottfried Düren

[contact@gd-mediaconsult.de](mailto:contact@gd-mediaconsult.de)