

400 mW 232 Way Signal Distribution System 350... 2500 MHz

## Features

- wideband
- compact 19" rack design
- amplitude balance  $\pm 1$  dB typ.

## Applications

- quality assurance: RF power stress tests
- production endtest
- HTOL tests
- DAB / GPS / SDARS / DVB-T  
ISM 433 / 868 / 2400 MHz  
GSM, UMTS, LTE
- multichannel transmitters
- research and development (R&D)



## 232 Channels, up to +20 dBm RF Power

The WSDU2500\_1X232 system is the compact solution for multichannel signal distributions with 400 mW output power capability per channel.

## Power Stress Test Applications

This distribution system is used in quality assurance, production endtest or in research and development (R&D) where multichannel RF power sources are needed.

## Compact and Flexible

The WSDU2500\_1X232 system contains all components in form of modules to distribute one signal source to 232 output channels.

The system contains the 6 U WSDU modules:  
WSDU1X8 (1X8 multicoupler),  
100 kHz ... 4000 MHz  
WSDU-1X8P (1X8 multicoupler),  
P1 dB  $\geq$  +24 dBm, 350 MHz ... 2500 MHz

## Customized Solutions

Based on the WSDU modules, systems with both many and just few outputs can be realized in an easy and flexible way.

Please contact us regarding your requirements.

## RF Specifications

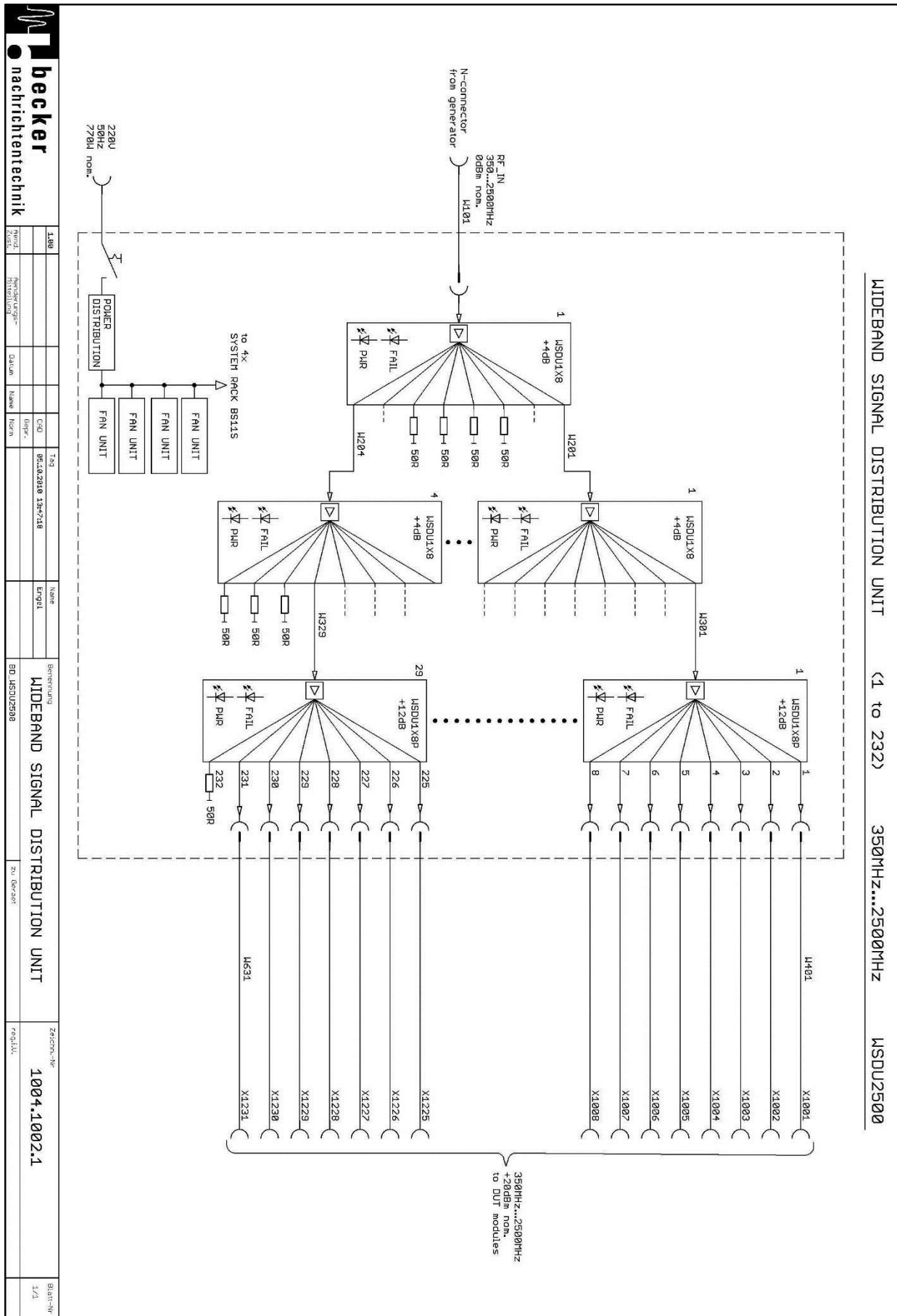
| Parameter            | Symbol             | Min. | Typ.    | Max.    | Unit | Condition          |
|----------------------|--------------------|------|---------|---------|------|--------------------|
| impedance            | $Z_{IN} / Z_{OUT}$ |      | 50      |         | Ohms |                    |
| number of inputs     |                    |      | 1       |         |      | N connector male   |
| input power          | $P_{in}$           |      | 0       | 15      | dBm  |                    |
| number of outputs    |                    |      | 232     |         |      | SMA connector male |
| low frequency        | $f_{min}$          |      | 300     | 350     | MHz  |                    |
| high frequency       | $f_{max}$          | 2500 | 2600    |         | MHz  |                    |
| output power         | $P_{out}$          | +20  | +21     |         | dBm  |                    |
| harmonics            | d2                 |      | -35     | -25     | dBc  |                    |
| output power balance | $\Delta S_{21}$    |      | $\pm 1$ | $\pm 2$ | dB   | output to output   |
| gain                 | $S_{21}$           | 7    | 25      | 30      | dB   |                    |

## Common Specifications

| Parameter             | Symbol    | Min. | Typ.                        | Max. | Unit | Condition                              |
|-----------------------|-----------|------|-----------------------------|------|------|--|
| cable feedthrough     | h         |      | 120                         |      | cm   | from floor, RF output 1...232          |
| output cable length   | l         | 2    |                             |      | m    | RF cable length from rack to DUT       |
| cable feedthrough     | h         |      | 165                         |      | cm   | from floor, RF input                   |
| cable length          | l         |      | 100                         |      | cm   | RF cable length from rack to generator |
| supply voltage        | U         |      | 230                         |      | V    | AC 50 Hz                               |
| power consumption     | P         |      | 770                         |      | VA   | without signal generator               |
| dimensions            | W x D x H |      | approx.<br>600 x 600 x 1665 |      | mm   | 34 U 19" system rack                   |
| warm up time          | $T_w$     |      | 1                           |      | h    |  |
| safety class          |           |      | IP10                        |      |      |  |
| operating temp. range | $T_o$     | +5   |                             | +35  | °C   |  |
| storage temperature   | $T_s$     | -20  |                             | +70  | °C   |  |



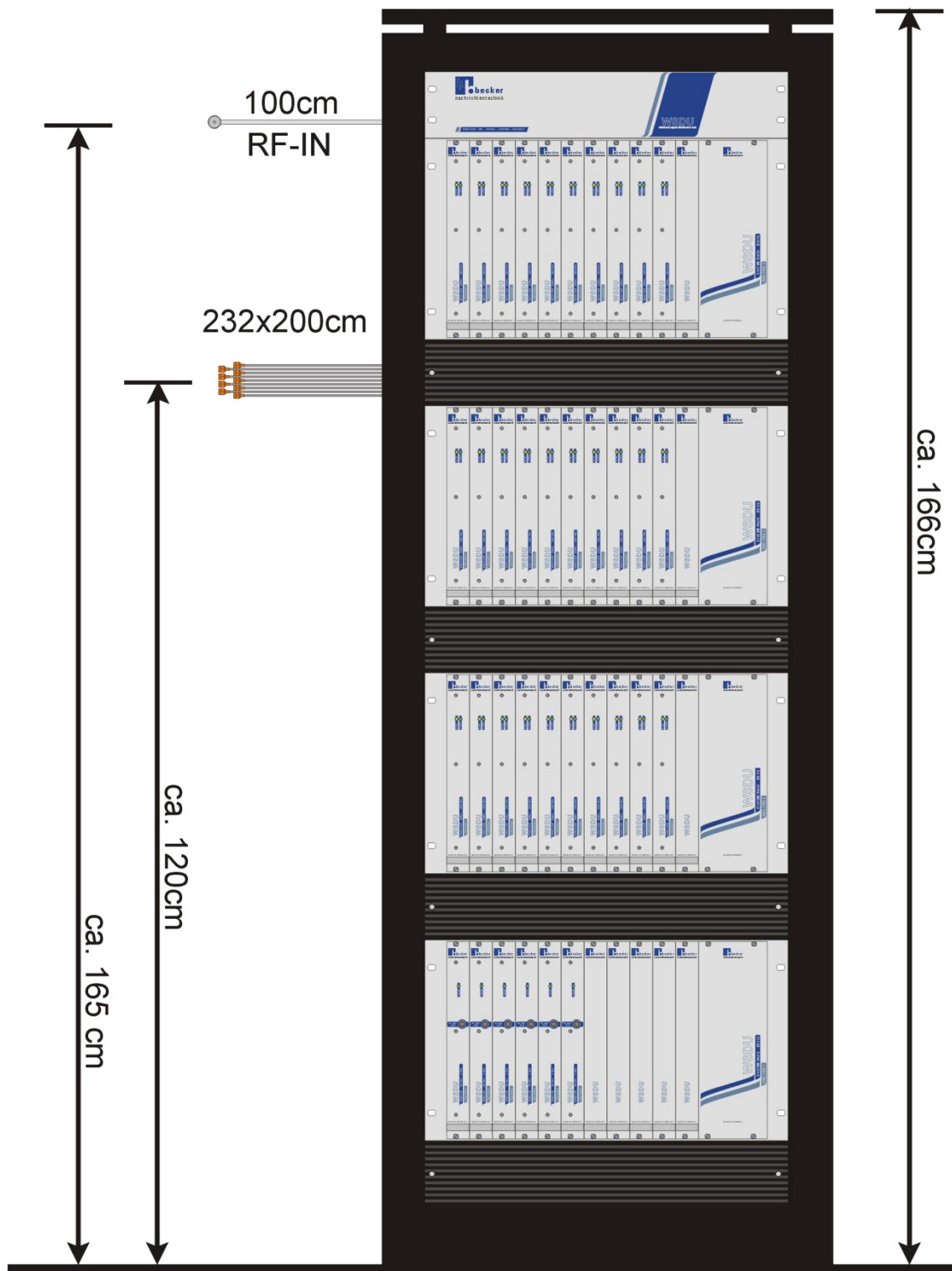
# System Block Diagram



|                                     |            |             |            |           |            |              |                  |                |            |           |            |
|-------------------------------------|------------|-------------|------------|-----------|------------|--------------|------------------|----------------|------------|-----------|------------|
| <b>becker</b><br>nachrichtentechnik |            | T83         |            | Name      |            | Beschreibung |                  | Zeichnungs-Nr. |            | Blatt-Nr. |            |
| Titel                               | Hersteller | Teilenummer | Material   | CD        | Ergr.      | Ergr.        | WSDU2500 132*218 | 1004.1002.1    | 1/1        |           |            |
| Proj. Nr.                           | Proj. Name | Proj. Nr.   | Proj. Name | Proj. Nr. | Proj. Name | Proj. Nr.    | Proj. Name       | Proj. Nr.      | Proj. Name | Proj. Nr. | Proj. Name |
|                                     |            |             |            |           |            |              |                  |                |            |           |            |



## Positions of Cable Feedthrough and Lengths



## Related Products

| Product     | Description  | P/N         |
|-------------|--|-------------|
| WSDU-1X10PL | 10 Way HTOL System 20 ... 2800 MHz,<br>P <sub>out</sub> up to 2.8 W per Channel    | 1202.6502.1 |
| WSDU-1X80PL | 80 Way HTOL System 20 ... 2800 MHz,<br>P <sub>out</sub> up to 2.8 W per Channel    | 1202.6002.2 |
| WSDU-1X80PE | 80 way Signal Distribution 2 ... 6 GHz<br>P <sub>out</sub> up to 2.5 W per Channel | 1501.6002.1 |

