Rev:002 05/16/2022

Connection Plan OCRA Console

The OCRA Tabletop console has connections on the front- and backside of its rack case. Connectors are standard RJ45, BNC female coaxial, SMA female coaxial and 2.5mm barrel jack connectors.

Image1: Back side of the console rack case.

Connect back-inputs and -outputs only to the given ratings of Table2.

Table1: Connections and ratings

Connection	Description	Minimum	Nominal	Maximum
Power Socket	IEC-60320 C14	88V AC	230V AC 50Hz	268V AC 0.8A
3.3V	3.3V Power Supply Output		3.3V	450mA
12V	12V Power Supply Output		12V	500mA
-15V	-12V Power Supply Output		-15V	500mA
Ethernet Port	Standard RJ45 Ethernet connection to Host-PC			
RX1	Receive Input 1			±20V (Jumper on RP ±1V)
RX2	Receive Input 2 (Next Revision)			±20V (Jumper on RP ±1V)
TX	Transmit Output			9.5dBm, 60MHz
TXgate	Txgate signal, LVTTL, High = Transmit, Low (Default) = Receive		0V / 3.3V	50mA
S	Gradient Outputs Single Ended (T568B)			±10V
X	Gradient Output X			±10V
Y	Gradient Output Y			±10V
Z	Gradient Output Z			±10V
Z^2	Gradient Output Z^2			±10V
D	Gradient Outputs Differential (T568B, Next Revision)			±10V

The gradient signals are summarised in RJ45 connectors. The pin layout is shown in table2. The S (single) connector will give out the same single ended signals as the BNC coaxial connectors. The D (differential) will give out the signals as GND lifted differential signals in I span of 10V.

Table2: S and D Connections

			S	D
1	orange-white	Pair 2	Y	Y+
2	orange	Pair 2	GND	Y-
3	green-white	Pair 3	Z	Z+
4	blue	Pair 1	GND	X-
5	blue-white	Pair 1	X	X+
6	green	Pair 3	GND	Z-
7	brown-white	Pair 4	Z^2	Z^2+
8	brown	Pair 4	GND	Z^2-

A recommended connection diagram of the OCRA Tabletop MRI System is shown in image2.

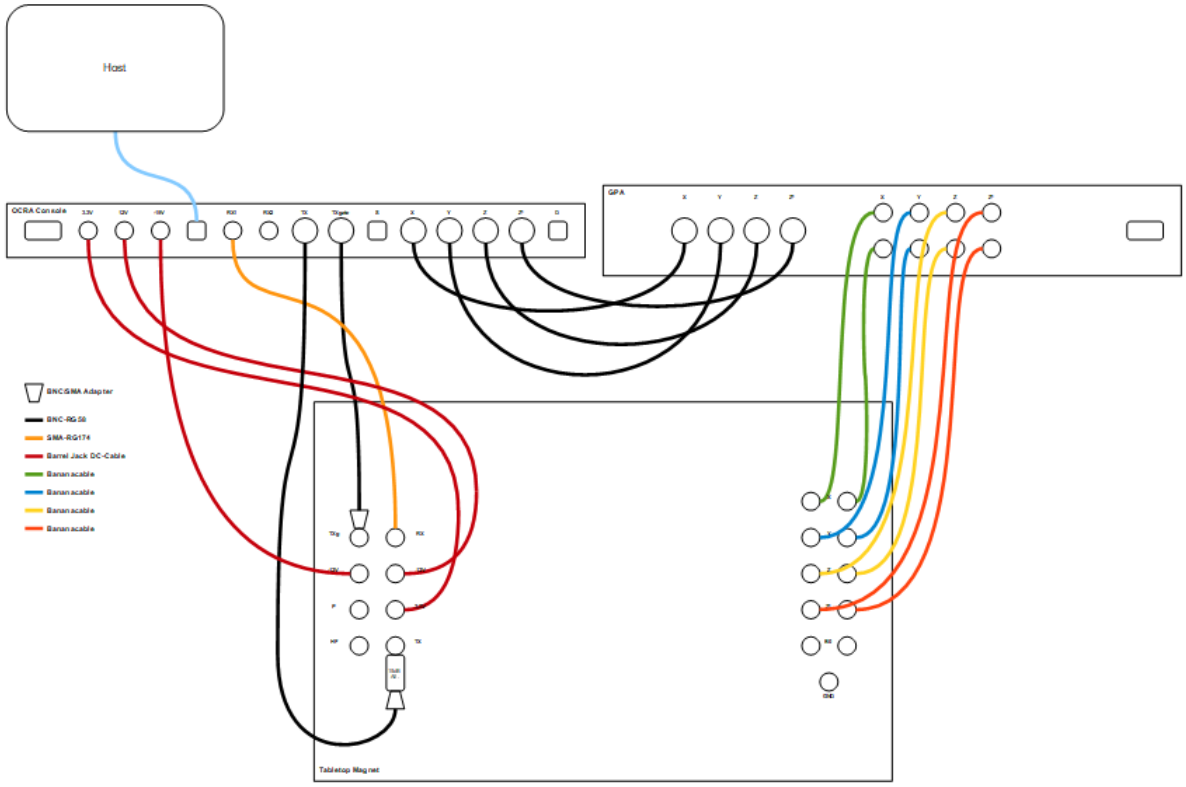

Image2: OCRA Tabletop MRI System wiring diagram.