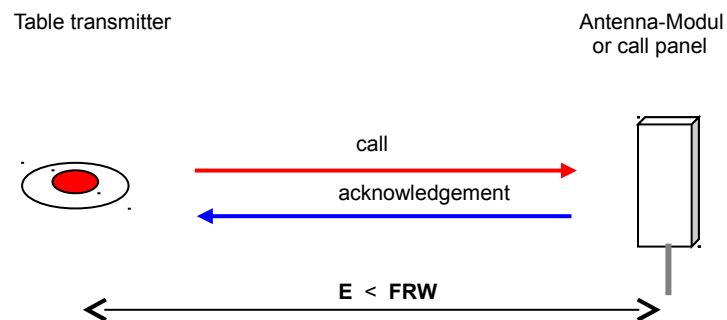


Funk-Ruf Repeater

Radio Signal Transmission at various distances

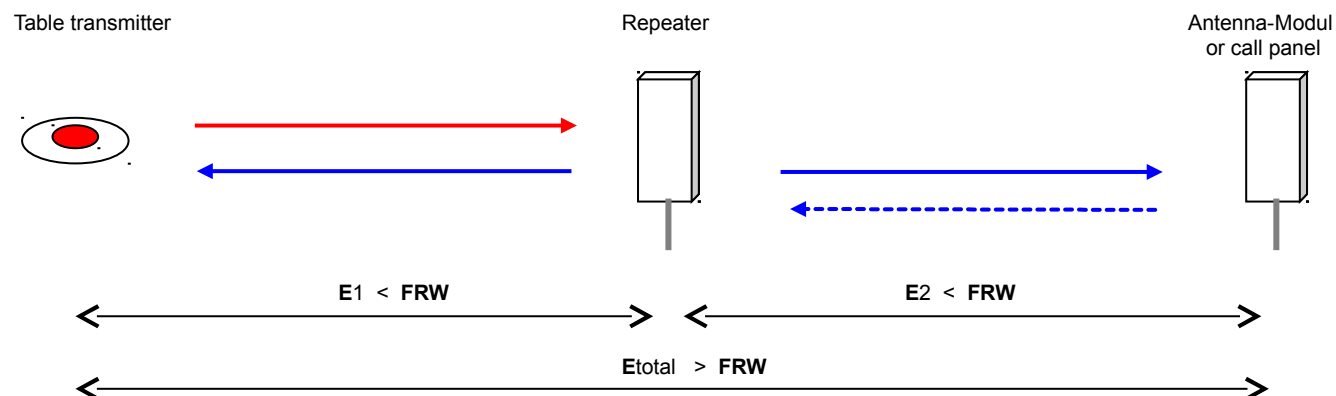
Example 1: Distance „E“ between Table transmitter and Antenna is within radio transmission range „FRW“



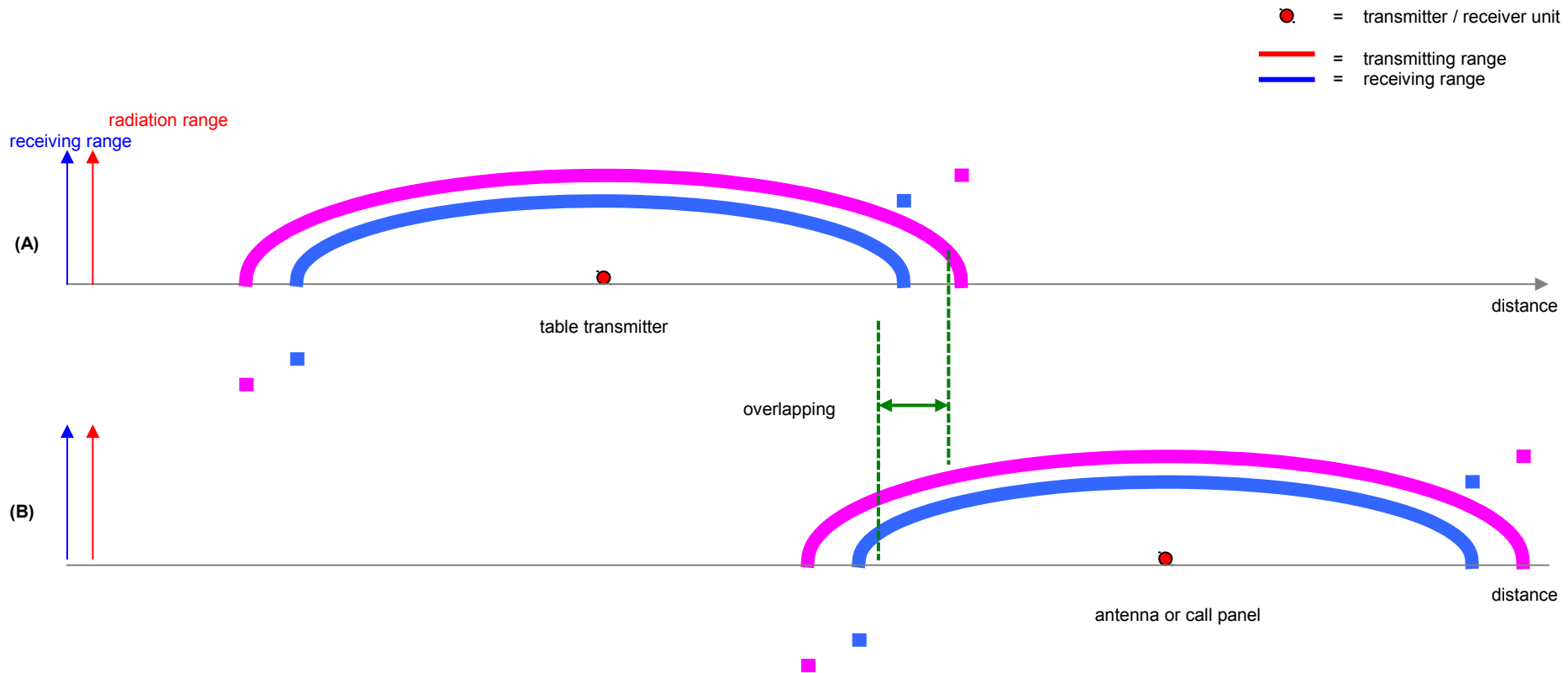
The call of the table transmitter is received by the Antenna module which immediately is sending back an acknowledgement to the table transmitter. (If this is not received, the table transmitter automatically is re-dialling once or twice)

Example 2: Distance „E“ between Table transmitter and Antenna is outside radio transmission range „FRW“, then a Repeater is placed between the Table transmitter and the Antenna.

Here the call of the table transmitter is received by the Repeater and acknowledged back, and also the Antenna is receiving this Repeater-Signal. (Note: The Repeater does not evaluate the acknowledgement signal from the Antenna-Modul to avoid unnecessary wireless signal traffic.)



For still longer distances or in difficult wireless projects up to 4 Repeaters can be cascaded. As no general valid rules can be given for optimizing radio signal propagation, it will be best to request an object specific consultation. Please ask us.



(A) and (B) showing the principal coverage ranges of table transmitters (A) and (B) antenna modul (or call panel).

Notes: Each of these units have a transmitter and a receiver, both working on one common antenna wire inside.

It is characteristic that this single antenna wire has different values for

the **radiation range** (i.e. transmission output power into the air, shown in red) and for

the **receiving range** (i.e. input sensitivity from the air, shown in blue)

For a reliable communication a minimum **overlapping** of approx. 10-20% of the maximum transmission range / receiving range is advisable.

Else, coming too close to the boarder of the common communication range, temporary environmental changes may influence or even hinder the communication.

It needs to be considered that radiation propogation is dependant from the distance and the surrounding material (damping, reflection...)

and that it may vary depending on chance in climate (humidity...), on traffic of persons, on change in furniture, etc.