

- When the tag moves closer to the reader, the chip receives more and more power, and the backscatter signal increases. At some point, the tag backscatters a strong enough signal for the reader to receive it. Because the reader is closer to the tag, the backscatter signal is also stronger than at the threshold level. This distance is the actual read range.
- When the tag moves still closer, there is a point where the reader would have could receive also the backscatter signal with the signal strength at threshold level. (Read range reverse.)
- Read range is in between the read range forward and read range reverse.

3.2.4 Backscatter

At the Backscatter tab transmit power can be input, and the curve shows backscatter signal strength as a function of frequency using the input transmit power.

4 Equipment Used in the Test

The read range test requires a Tagformance Pro device; UHF RFID hardware license; an accessory set such as Hand Carry Kit, Field Engineer Kit or Measurement Cabinet; and the Tag Designer Suite (TDS) software.

5 Notes and Tips

For getting accurate results, a measured setup is recommended. It is recommended to verify the setup by testing the reference tag with a threshold sweep and comparing the result to the reference curve.

It is possible to save reader profiles to the software. With a library of reader profiles, it is easy to check system level read range with various readers just by testing the tag or a tagged item.