

PIM FINDER

Kaelus PIM Finder is a solution designed to identify and locate external PIM sources. External PIM sources come in many different forms, i.e. corroded metal, loose metal objects, or objects that are non-linear in the proximity of the radiating antenna. The main objective of the Kaelus PIM Finder Solution is to help identify the location of external PIM sources and quickly suppress these interfering signals using different methods, like removing or covering the PIM source.

The PIM Finder solutions consists of several components all designed by Kaelus to ensure a quick and easy setup at site for a user-friendly operation.

Once all internal PIM sources have been eliminated, the Kaelus PIM Finder solution set-up can be used with single or dual port solutions.

FEATURES

- Complete solutions from Kaelus
- One GUI controls all equipment by Unify software from Kaelus
- iPA provides two transmit tones at a power level of up to 40W per carrier
- iVA provides a receiver for measuring externally generated PIM
- One-handed operation, direct connection from iVA to low PIM probe
- Small and lightweight, allows for working in hard to access areas
- Equipment designed for harsh environment and with field use in mind



1 PORT - PIM FINDER SOLUTION

Kaelus 1 Port PIM Finder solution helps identify and locate external PIM sources, with assumption that all internal PIM sources from the Antenna infrastructure have been eliminated. This solution helps to search for external PIM sources caused by loose mounting brackets, fasteners, parapet walls and more. The Kaelus PIM Finder solution is ideal for all testing scenarios including tower, rooftop, DAS and small cell sites.

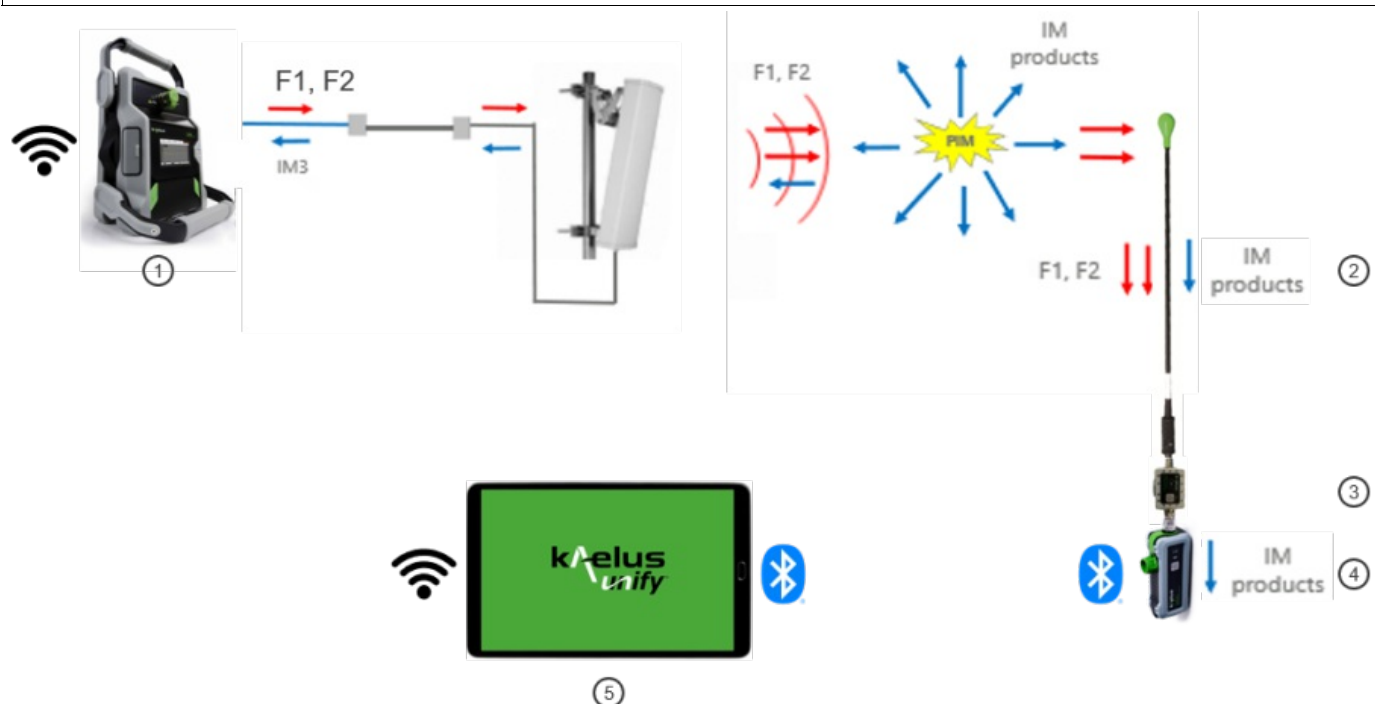


Figure 1: 1-port PIM Finder solution

The 1 port PIM finder solution consists of lightweight, easy to use products that are battery powered:

1. A portable PIM Test Analyzer (iPA)
2. PIM Test probe
3. Protection filter/Bandpass Amplifier (BPA)
4. Cable and Antenna Analyzer (iVA)
5. Kaelus Unify Software for remote control of iPA and iVA. Running on iOS/Android tablet/phone, or Windows PC

2 PORT - PIM FINDER SOLUTION

The Kaelus 2 Port PIM Finder solution is based on the USA based operator AT&T 700 MHz Band, but can also be used for other scenarios, i.e. EMEA 700 when co-sited with EMEA 800 band. This solution assumes all internal PIM sources have been eliminated within the antenna infrastructure. The Kaelus PIM Finder provides the ability to search for PIM sources caused by loose mounting brackets, fasteners, parapet walls and more. PIM Finder is ideal for all testing scenarios including tower, rooftop, DAS and small cell sites.

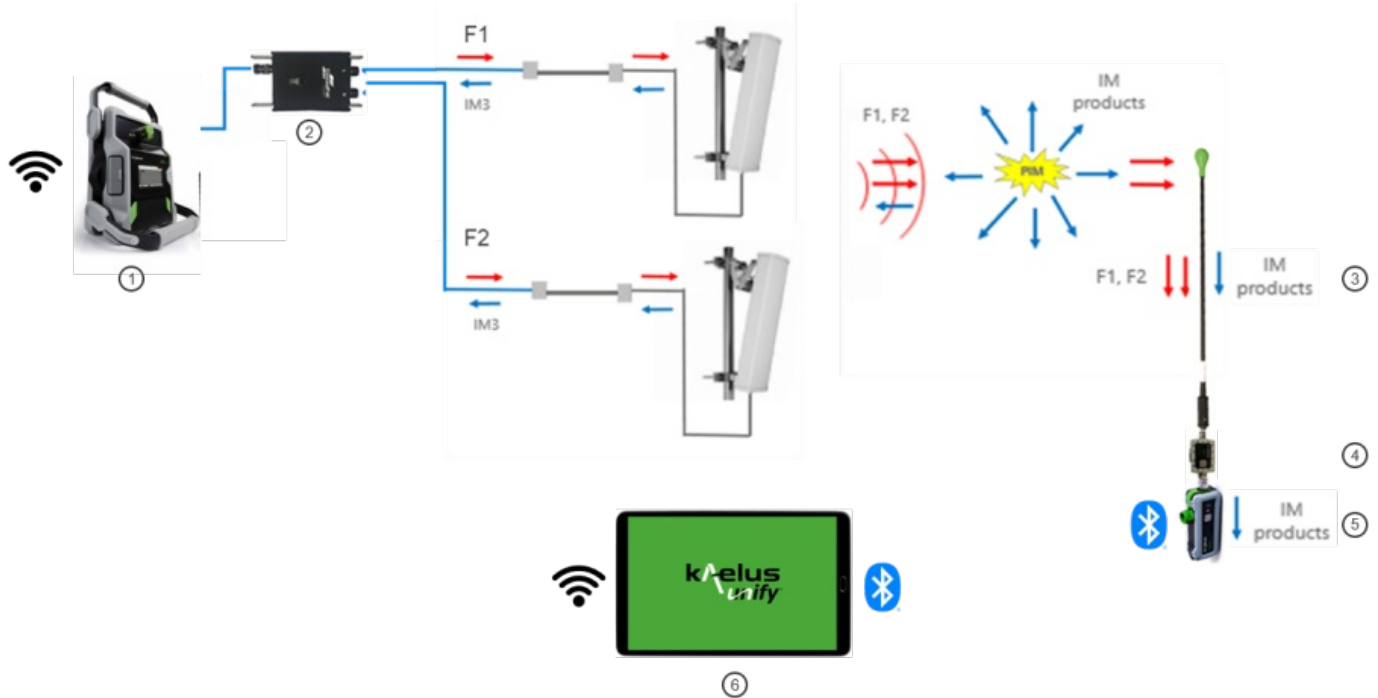


Figure 2: 2 port PIM finder solution with external filter to separate F1 and F2

The 2 ports PIM finder solution consists of lightweight, easy to use products that are battery powered:

1. A portable PIM Test Analyzer (iPA)
2. Conceal Fabs filter, <https://concealfab.com/product/2-port-700-mhz-filter-kits/>
3. PIM Test probe
4. BPA-TX filter to optimize sensitivity for 700 MHz
5. Cable and Antenna Analyzer (iVA)
6. Kaelus Unify Software for remote control of iPA and iVA. Running on iOS/Android tablet/phone, or Windows PC



Figure 4: PIM Finder in action