

# BPA PIM Finder

## Quick Start Guide

The following steps outline how to set up the iVA and BPA to begin the process of Finding PIM that is external to the antenna infrastructure.

Passive Intermodulation is a well-known and common issue in cellular communications infrastructure including tower sites, DAS systems, Macro sites, and Micro sites. Measuring PIM within the antenna infrastructure is routine. However, PIM sources can occur externally to the antenna infrastructure and will effect network quality in the same way. Kaelus has introduced a light-weight, easy to use, PIM Finding solution to assist in accurately finding all sources of PIM issues external to the antenna system.

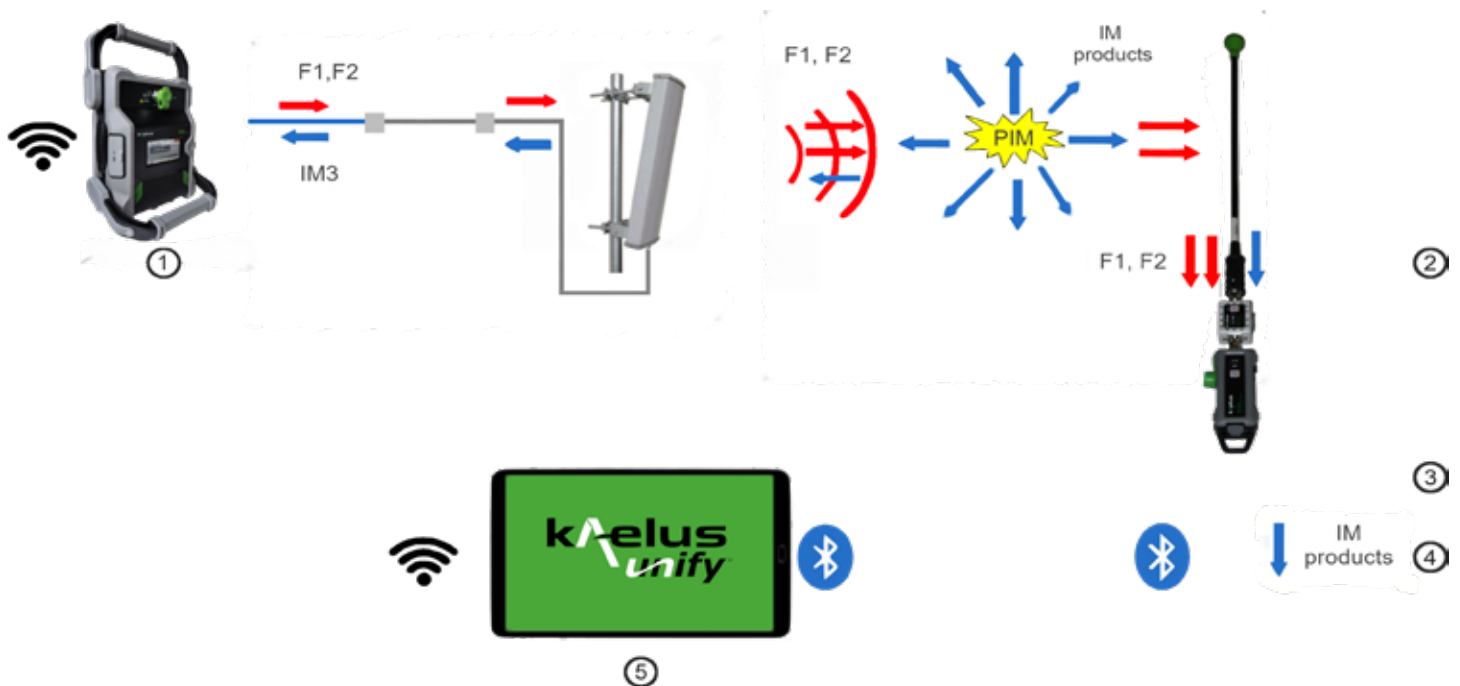
The following steps outline how to set up the iVA and iPA to begin the process of locating PIM that is external to the antenna infrastructure. The BPA-0707A helps the Cellular, First Net and Public Safety networks in the 700MHz Band to coexist without interference.

The following steps outline how to set up the iVA and BPA using the Unify app and its "PIM FINDER option", to begin the process of locating PIM that is external to the antenna infrastructure.

### Equipment Required

1. iPA-0707 PIM Analyzer – provides 2 RF carriers to be transmitted into the antenna system
2. PIM Finder Probe – the probe provides the ability to hunt for external PIM sources
3. BPA-0707A - Band-Pass Amplifier – Band pass filtered LNA (Low Noise Amplifier)
4. iVA Cable & Antenna Analyzer – receiver for measuring the externally generated PIM sources
5. Control device with Kaelus Unify app installed, free to download

### Equipment Setup



Please read the entire Quick Start guide BEFORE starting the PIM Finder option in the Kaelus Unify app.




**FIRST STEP: Connect to iVA**

1. Launch Unify on your device, connect to the iVA  
*Note: iVA must have PF (PIM Finder) Software option Installed. Refer to Kaelus Unify or contact Kaelus to purchase and install PIM Finder option.*

2. Go to "Settings" – "General" – Enable "Beep on Failure"



3. Add new test by clicking the plus  icon
  - a Instrument: "Cable & Antenna Analyzer, iVA"
  - b Measurement: "PIM Finder"
  - c Model: iVA-0627A (N-Type) iVA-0627B (4.3-10)
  - d Frequency: Select IM3 frequency
  - e Units: Typically, "dBm" optional mW selection
  - f Pass/Fail Criteria: Tolerance Limit
  - g Add Test

4. Select "Traces"  icon
  - a Add BPA Gain offset found on back of BPA unit
 \*Ensure to select correct "Gain" value



5. Enter desired Gain value (High or Low)

6. Limit line can be adjusted with slider on right bottom of screen
  - a. Set limit to desired level.
    - 1 Single (left) click on Next Limit icon
    - 2 \*Note arrow next to limit value
    - 3 Use "Slider Bar" to adjust limit value
 \*NOTE: Starting Tolerance Limit value should be at least 10dBm lower than your max PIM level on your iPA Analyzer the Level can be adjusted whilst running PIM Finder

## SECOND STEP: Begin PIM Finding



- a. PIM Analyzer RF ON
- b. Trigger measurement in Kaelus Unify (play button)
- c. Use PIM probe to search, find, and identify PIM sources
- d. Adjust Limit value to help narrow down the exact location of external PIM source.