



# SIMPLE RETURN SWEEP AND BALANCE



## Return Sweep, it doesn't need to be complicated.

Distributed CCAP architectures and R-PHY have presented some challenges as to how cable operators can continue to perform the necessary return sweep and balance. Various proprietary solutions have been proposed, but to date these solutions necessitate complex configuration of NDR and NDF channels, the use of return path switching matrices, and even upgrades of field meters. We think these approaches are too complex and costly, and as an alternative we have developed the Arcom Digital Simple Return Sweep and Balance platform.

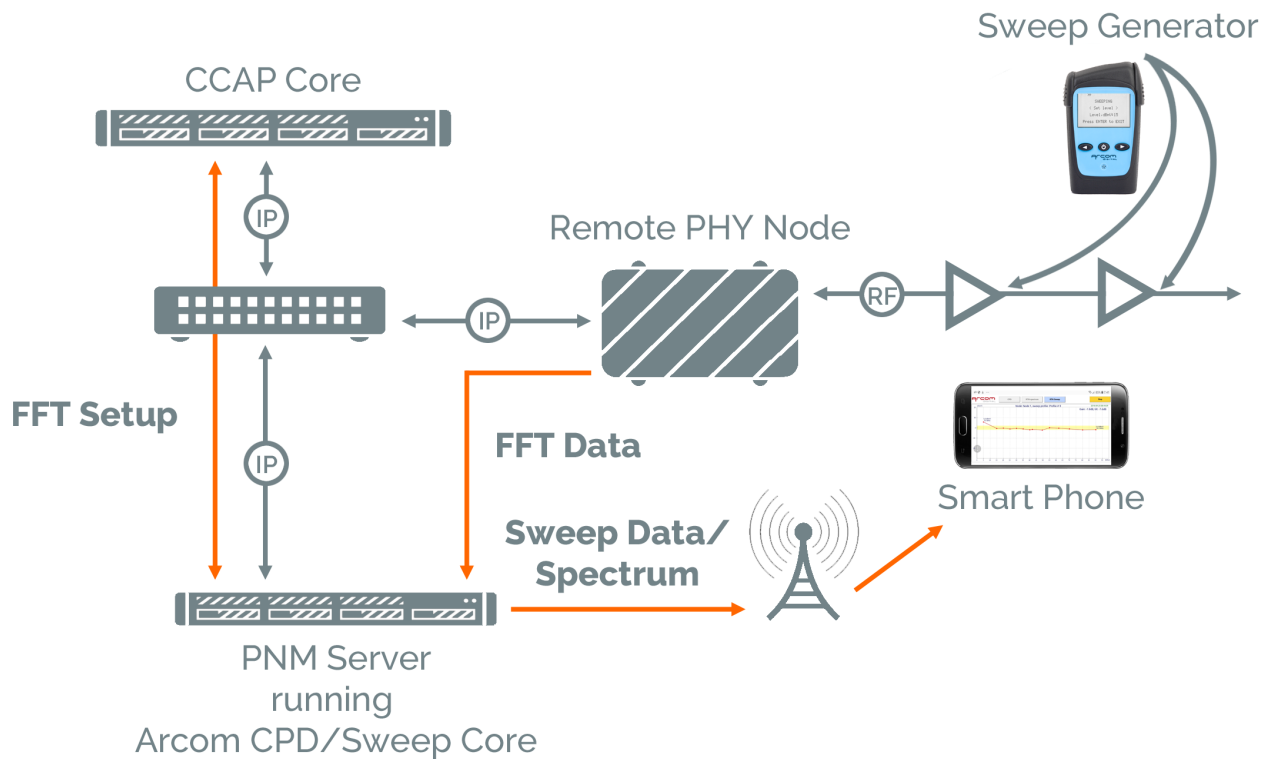
The process is very simple and straightforward. A standalone pilot generator is used to generate the return sweep signals from 5-200MHz in any desired configuration and level. A software application running the Arcom Sweep Core is integrated within any PNM platform, and then using standard MIBs that are part of the Remote PHY specification, the core requests FFT return data from the CCAP Core for the desired Remote PHY Node. Upon request from the user with his Smart Phone connecting to the Arcom Core, FFT data from the node is captured, processed by the core, and forwarded to the technician's smart phone where sweep results are viewed instantaneously.

A simple implementation that we call Simple Return Sweep and Balance.



# SIMPLE RETURN SWEEP AND BALANCE

## Block Diagram





PRODUCTIVITY DRIVEN

## SSG SIMPLE SWEEP GENERATOR

The SSG Simple Sweep Generator is used to insert the sweep signals into the network. It is programmable and can be configured with as many different sweep profiles as you require, each customizable with different numbers of sweep points, transmit levels, and frequency bands from 5-204MHz.



## QUIVER XT

The Arcom Digital Quiver XT is a tremendously effective tool that detects and ranges the distance to CPD. It also contains a unique network traffic compatible TDR, the only TDR able to be used non-disruptively on live plant. Quiver XT also has a built in compatible Simple Sweep Generator which can be used as an alternative to the SSG device.



SPECIFICATION

### SSG Simple Sweep Generator

Sweep bandwidth: 5 -204 MHz

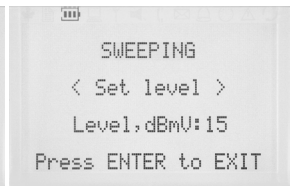
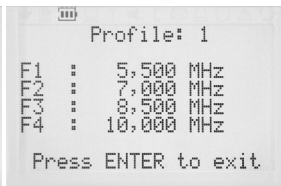
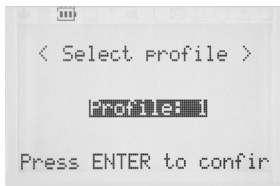
Maximum number of sweep pilots per profile: 128

Maximum Transmit level: +42 dBmV

Relative level of sweep pilot level: -10 dBc

Maximum number of sweep profiles: 64

Programming of sweep profiles: via USB from PC txt file



CLEARLY BETTER

**ARCOM**  
DIGITAL



# BUILT TO HELP YOU PERFORM BETTER

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**COST-EFFECTIVE:** Non-proprietary solution, no need to upgrade meters, no need for complicated per user licensing.

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**SIMPLE IMPLEMENTATION:** No need to configure NDR/NDF channels for the Remote PHY setup, no need for any return switches for routing of sweep signals, no need to track MAC addresses of transmitter. Communication to display Sweep results for technician is simply via a smart phone.

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**NON-PROPRIETARY:** Install and integrate the Arcom Simple Sweep Core on any PNM platform or monitoring platform.

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**SCALABLE:** Using a container architecture, the Arcom Simple Sweep Core can scale to appropriately fit your network, today and tomorrow.

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**MULTI-USER:** Compatible for simultaneous use by multiple technicians, even those working on the same node.

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**EASY FOR THE TECHNICIAN:** Connect your smart phone to the Arcom Simple Sweep web page, select the node you are working on from the drop-down menu, turn on the sweep generator, press GET SWEEP DATA, and sweep results are displayed in a few moments.

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**FLEXIBLE:** You configure the number of sweep profiles bases on your needs, and load into the SSG Simple Sweep Generator via USB. Sweep Profiles can be selected with a bandwidth up to 204 MHz, with as many pilots as required at whatever frequency you select, at a selectable transmit level. Different scenarios and requirements of greenfield new plant certification, balance, sweep, and varying return bandwidths are easily handled.

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**COMPARE AND STORE:** Current sweep results can be viewed referencing prior results.

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Arcom engineers and manufactures the most advanced and effective solutions in the world for cable network impairment, leakage detection and locating technology. Arcom employs unique passive radar Xcor technology and provides the only equipment in industry capable of locating both linear and nonlinear distortions like Common Path Distortion (CPD). We developed these solutions because we are committed to making our customers life's easier and their customers happier.

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