**XL5827 250 Mbps Connectorized
PTP kit to connect to Branching Unit**

Introduction

Setting up a dual link between a 6L Licensed Band link (up to 6.425 GHz) and an unlicensed band link can be beneficial in many ways.

- BACKUP — The unlicensed link can provided a general purpose backup for the 6 GHz primary link without the cost and delay of a licensed link.

- IMMEDIATE DEPLOYMENT — The customer can set up the 5GHz link immediately while waiting for the 6GHz license to be approved and the equipment to be delivered. The 6GHz licensed may take several months. The 5.8 GHz link is often available with a very short time and can be installed immediately without FCC licenses.

- CAPACITY EXPANSION — The 5.8GHz link can be used as a capacity expansion as the 6GHz license (30 MHz) may not be sufficient for some applications.

Implementation

A common requirement for multiple radio deployment is sharing of a single antenna. The reasons may be that the antenna and waveguide may already be installed at the site, tower spaces may be limited, or costs involved in tower climbs and logistics cannot be justified.

Many 6 GHz antennas have frequency band range to cover the 5.8 GHz unlicensed band, so the user can easily achieve a single antenna configuration so long as the licensed band radio is in the 6GHz frequency band (5.9 to 6.875 GHz Band FCC Part 101).

To combine the signals from two radios, Solectek's Branching Unit is required. Branching units are available with waveguide or coax connections for customer convenience.

The connection diagram is as shown below. The Branching Unit ensure various signals to be delivered to the intended radio receiver unit without causing interference to other receivers. By combining the links this way, the user will be able to achieve over 500 Mbps aggregate throughput without using additional antennas or obtaining new FCC link licenses.

6 GHz LICENSED RADIO
(SOLECTEK LM/XM/CM)

300Mbps 6 GHz FD LINK (30MHz)

BRANCHING UNIT

250Mbps 5.8 GHz TDD LINK

5.8 GHz UNLICENSED RADIO
(SOLECTEK XL PTP KIT)

6 GHz LICENSED RADIO
(SOLECTEK LM/XM/CM)

BRANCHING UNIT

5.8 GHz UNLICENSED RADIO
(SOLECTEK XL PTP KIT)

SOLECTEK