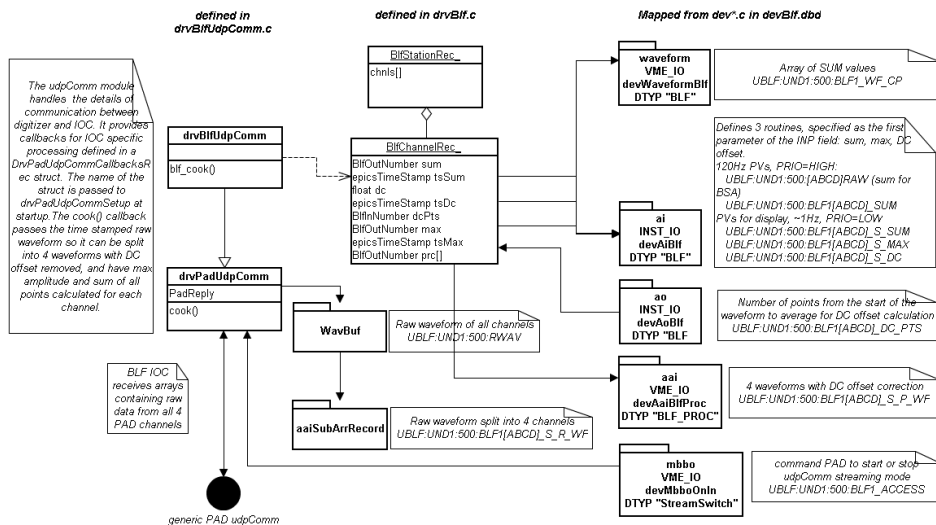


Beam Loss Fiber

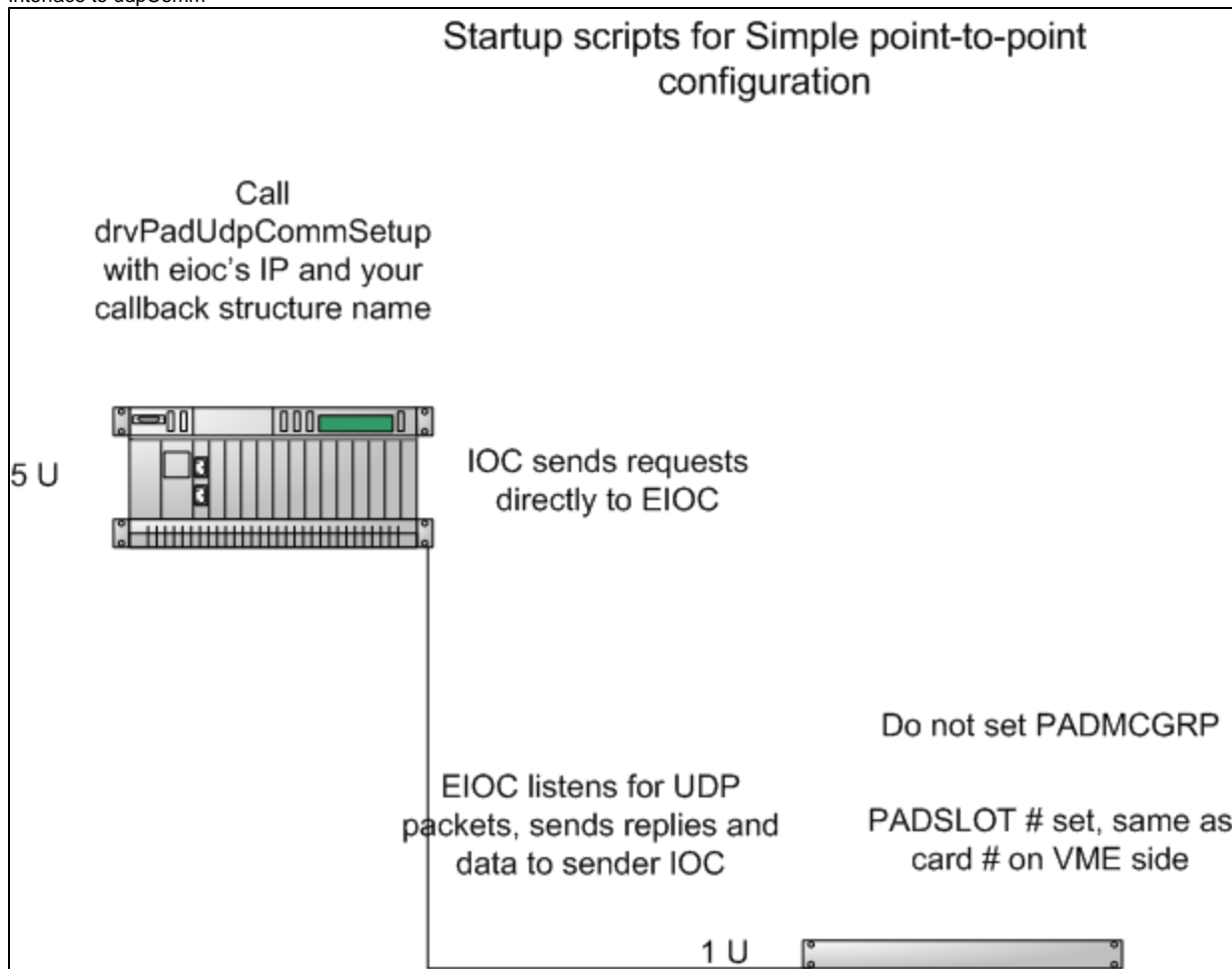
The Beam Loss Fiber is used to identify the location of beam losses. The sensor is similar to the bunch length system, but the Cherenkov sensor is an optical fiber extending the length of the undulator rather than a lucite block. Whereas the bunch length system uses the intensity of the signal from the sensor, the beam loss fiber uses arrival time to deduce the location along the fiber where there is beam loss.

The electronics and software are nearly the same as a bunch length system, as shown in the diagrams below.

Flow of data from udpComm through C code to PVs



Interface to udpComm



Startup scripts for UDP broadcast
Can be used in a subnet, but spams all hosts
with requests

Call
drvPadUdpCommSetup
with subnet broadcast IP
(ending in .255) and your
callback structure name

5 U



IOC sends requests to all
hosts. Those whose
PADSLOT match the
request will respond.



Do not set PADMCGRP

PADSLOT # set, same as
card # on VME side

EIOC listens for UDP
packets, sends replies and
data to sender IOC

1 U



Startup scripts for UDP multicast
Can be used in a subnet, requests only go to
EIOCs subscribed to this IOC's multicast
address

Call
drvPadUdpCommSetup
with multicast IP (for
iochostname-padg) and
your callback structure
name

5 U



IOC sends requests
multicast. Switch forwards
only to EIOCs subscribed
to that multicast group
(iochostname-padg)



PADMCGRP set to
iochostname-padg

PADSLOT # set, same as
card # on VME side

EIOC listens only for
multicast packets, ignores
broadcasts, sends replies
and data to sender IOC

1 U

