



# Async Link ++ protocol for MORSE

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## 1. Introduction

Async Link ++ is similar to the Async Link protocol, the difference being the use of the complete MORSE address in the parameter.

The Async Link ++ is the simplest protocol that creates an asynchronous link between two points. The target address is determined by the protocol parameter. Data is transferred to the radio channel without being modified and no CRC is used.

## 2. Data Format

Data is created by a arbitrary combination of bytes of length 1 to 1550 bytes, (the optimum length of the packet for transmission through the radio network is 100 to 500 bytes).

## 3. Implementation in Morse

Below is an example of processing data inserted to port SCC2, which is set with the Async Link ++ protocol:

```
>>
Monitoring: source 690F5501|5.
10:34:37.035 rxsim 2 | S02
BBBB
CNI mon |toa frn |dst src | size|TT N
10:34:37.049| | |690F5502 690F5501|S02I OUT 2| 89 0user
BBBB
RF mon |toa frn |dst src |lNo!DQ!RSS size|TT N
10:34:37.063|690F5502 690F5501|690F5502 690F5501|005 RFTX 2*89 4dat
BBBB
```

- first monitoring contains inserted data BBBB
- second monitoring contains unchanged data after transfer through the protocol. A destination address is added according to the parameter.
- the third record represents a packet sent via the radio channel already furnished with all addresses

The Async Link ++ protocol can identify the received character BREAK and responses by sending 2 bytes of prot data 0x0010 (type 0A or 8A) to the node. After receiving this data the receiving modem sends the BREAK length 4 bytes it ithe serial port.

## 4. Configuration Parameters

The protocol uses a single parameter, which defines the address of the opposite station.

```
ASYNC LINK ++ parameters:
link destination (32 bit possible)
(a)ddress:690F5502h
(q)uit
>>
```

The parameter contains the whole address and therefore it is not necessary to set address transfer in the Sle menu. The "Sle 0uAn" option can be chosen for using the address without any change.