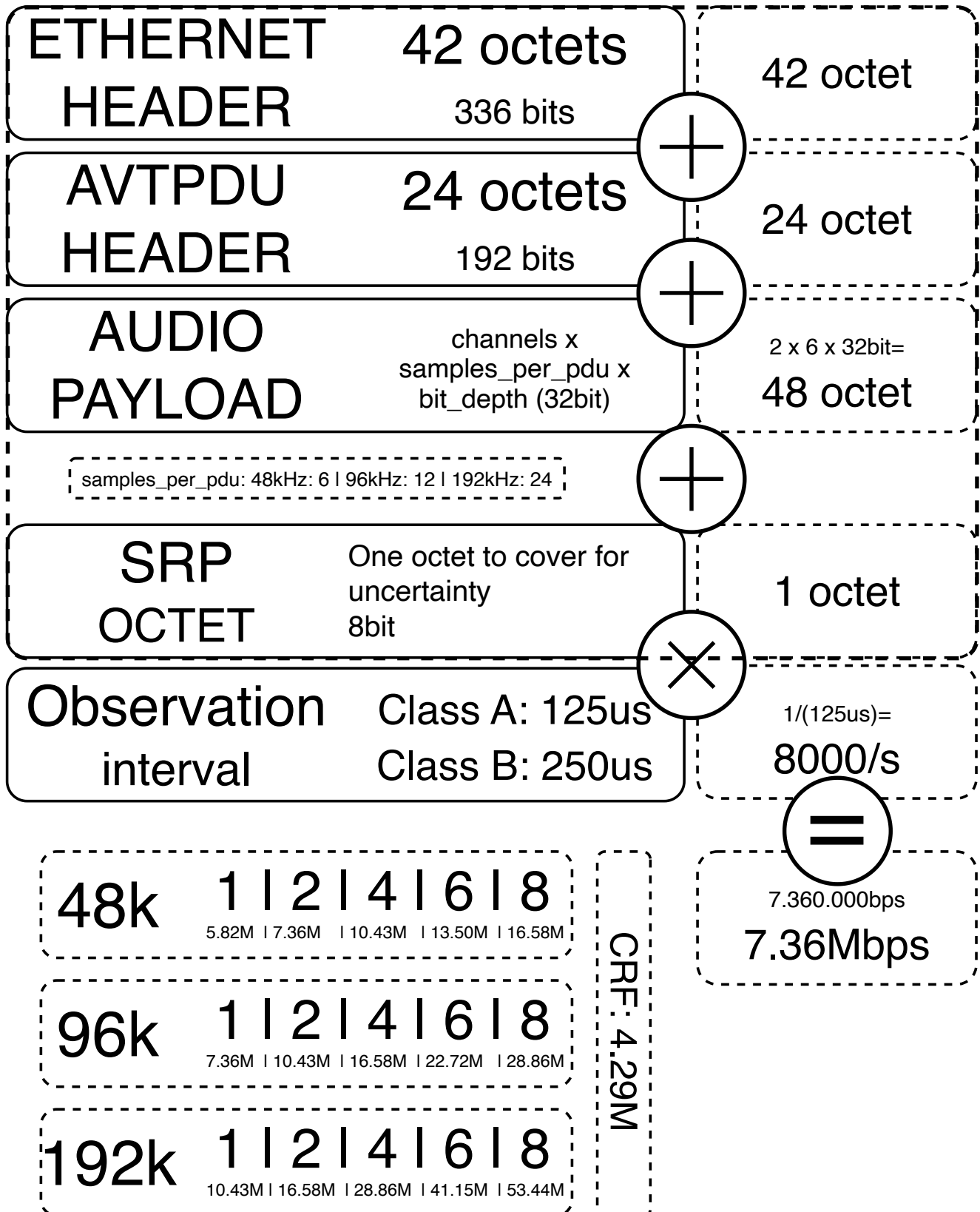# Milan Audio BW reservation

How to calculate the reserved
bandwidth of a Milan Audio Stream

Example:
2CH @ 48kHz

ETHERNET HEADER	42 octets 336 bits		42 octet
AVTPDU HEADER	24 octets 192 bits	+	24 octet
AUDIO PAYLOAD	channels x samples_per_pdu x bit_depth (32bit)	+	2 x 6 x 32bit= 48 octet

samples_per_pdu: 48kHz: 6 | 96kHz: 12 | 192kHz: 24

| SRP OCTET | One octet to cover for uncertainty 8bit | + | 1 octet |
| Observation interval | Class A: 125us
Class B: 250us | × | 1/(125us)=
8000/s |

=

7.360.000bps
7.36Mbps

| 48k | 1 | 2 | 4 | 6 | 8 |
| | 5.82M | 7.36M | 10.43M | 13.50M | 16.58M |

| 96k | 1 | 2 | 4 | 6 | 8 |
| | 7.36M | 10.43M | 16.58M | 22.72M | 28.86M |

| 192k | 1 | 2 | 4 | 6 | 8 |
| | 10.43M | 16.58M | 28.86M | 41.15M | 53.44M |

CRF: 4.29M

Milan CRF BW reservation

How to calculate the reserved bandwidth of
a Milan CRF Stream

ETHERNET HEADER	42 octets / 336 bits		42 octet
		$+$	
AVTPDU HEADER	20 octets / 160 bits		20 octet
		$+$	
CRF PAYLOAD	1 sample_per_pdu x bit_depth (32bit)		1 x 32bit= 4 octet
		$+$	
SRP OCTET	One octet to cover for uncertainty 8bit		1 octet
		$\times$	
Observation interval	Class A: 125us / Class B: 250us		1/(125us)= 8000/s
		$=$	
CRF	4.288.000bps / 4.29Mbps		