

### Kablo İnternet Sistemleri Arayüzleri

| Arayüz                     | Marka    | Model       | Hız      | Standard       | REFERANSLAR                                        |
|----------------------------|----------|-------------|----------|----------------|----------------------------------------------------|
| Fast Ethernet              | Cisco    | UBR10K-CMTS | 100 Mbps | IEEE 802.3u    | IEEE 802.3 Ethernet                                |
| Fast Ethernet              | Motorola | BSR64K-CMTS | 100 Mbps | IEEE 802.3u    | IEEE 802.3 Ethernet                                |
| Gigabit Ethernet           | Cisco    | UBR7246VXR  | 1 Gbps   | IEEE 802.3z    | IEEE 802.3 Ethernet                                |
| Gigabit Ethernet           | Cisco    | UBR10K-CMTS | 1 Gbps   | IEEE 802.3z    | IEEE 802.3 Ethernet                                |
| Gigabit Ethernet           | Motorola | BSR64K-CMTS | 1 Gbps   | IEEE 802.3z    | IEEE 802.3 Ethernet                                |
| Downstream Cable Interface | Cisco    | UBR10K-CMTS | 43 Mbps  | Docsis 1.x/2.0 | ITU-T Recommendation J112                          |
| WideBand Interface         | Cisco    | UBR10K-CMTS | >43 Mbps | Docsis 3.0     | ITU-T Recommendation J222.0,J.222.1,J222.2,J.222.3 |
| Upstream Cable Interface   | Cisco    | UBR10K-CMTS | 30 Mbps  | Docsis 2.0     | ITU-T Recommendation J112                          |
| Downstream Cable Interface | Motorola | BSR64K-CMTS | 43 Mbps  | Docsis 1.x/2.0 | ITU-T Recommendation J112                          |
| WideBand Interface         | Motorola | BSR64K-CMTS | >43 Mbps | Docsis 3.0     | ITU-T Recommendation J222.0,J.222.1,J222.2,J.222.3 |
| Upstream Cable Interface   | Motorola | BSR64K-CMTS | 30 Mbps  | Docsis 2.0     | ITU-T Recommendation J112                          |

### Kablo İnternet Sistemleri Abone Arayüzleri

| ARAYÜZ              | CİHAZ       | HIZ              | STANDARD            | REFERANSLAR                                             |
|---------------------|-------------|------------------|---------------------|---------------------------------------------------------|
| Cable Interface     | Cable Modem | >43 Mbps         | Docsis 2.0/3.0      | ITU-T Recommendation J112,J222.0,J.222.1,J222.2,J.222.3 |
| Ethernet Interface  | Cable Modem | 100 Mbps         | IEEE 802.3u         | IEEE 802.3 Ethernet                                     |
| Telephone Interface | Cable Modem | -                | Packetcable 1.0/1.5 | RFC 2705 NCS/MGCP                                       |
| USB Interface       | Cable Modem | 12 Mbps-480 Mbps | Usb 1.1/2.0         |                                                         |
| Wireless            | Cable Modem | 54 Mbps          | 802.11g             | IEEE 802.11 Wireless Networking WiFi                    |

### Kablo İnternet Sistemleri Docsis Arayüzleri

| Docsis Version | Downstream                            |                                                                  |                             |                            | DOCSIS throughput                     |
|----------------|---------------------------------------|------------------------------------------------------------------|-----------------------------|----------------------------|---------------------------------------|
|                | Channel configuration                 |                                                                  |                             |                            |                                       |
|                | Minimum selectable number of channels | Minimum number of channels that hardware must be able to support | Selected number of channels | Maximum number of channels |                                       |
| 1.x            | 1                                     | 1                                                                | 1                           | 1                          | 43 (38) Mbit/s                        |
| 2.0            | 1                                     | 1                                                                | 1                           | 1                          | 43 (38) Mbit/s                        |
| 3.0            | 1                                     | 4                                                                | <i>m</i>                    | No maximum                 | <i>m</i> × 43 ( <i>m</i> × 38) Mbit/s |

| Docsis Version | Upstream                              |                                                                  |                             |                            | DOCSIS throughput                        |
|----------------|---------------------------------------|------------------------------------------------------------------|-----------------------------|----------------------------|------------------------------------------|
|                | Channel configuration                 |                                                                  |                             |                            |                                          |
|                | Minimum selectable number of channels | Minimum number of channels that hardware must be able to support | Selected number of channels | Maximum number of channels |                                          |
| 1.x            | 1                                     | 1                                                                | 1                           | 1                          | 10.24 (9) Mbit/s                         |
| 2.0            | 1                                     | 1                                                                | 1                           | 1                          | 30.72 (27) Mbit/s                        |
| 3.0            | 1                                     | 4                                                                | <i>n</i>                    | No maximum                 | <i>n</i> × 30.72 ( <i>n</i> × 27) Mbit/s |

| Docsis 3.0 Channel configuration |                             | Downstream throughput | Upstream throughput |
|----------------------------------|-----------------------------|-----------------------|---------------------|
| Number of downstream channels    | Number of upstream channels | DOCSIS 3.0            |                     |
| 4                                | 4                           | 171.52 (152) Mbit/s   | 122.88 (108) Mbit/s |
| 8                                | 4                           | 343.04 (304) Mbit/s   | 122.88 (108) Mbit/s |

| Cable Interface Line Card           | Downstream Modulation | Upstream Modulation        |
|-------------------------------------|-----------------------|----------------------------|
| Cisco uBR10-MC5X20                  | 64-QAM, 256-QAM       | QPSK, 8-, 16-, 32-, 64-QAM |
| Cisco uBR7246-MC2X8U                | 64-QAM, 256-QAM       | QPSK, 8-, 16-, 32-, 64-QAM |
| Cisco uBR7246-MC1X6C                | 64-QAM, 256-QAM       | QPSK, 8-, 16-, 32-, 64-QAM |
| Cisco uBR7246-MC1X6U                | 64-QAM, 256-QAM       | QPSK, 8-, 16-, 32-, 64-QAM |
| Motorola 2x8 DOCSIS 2.0 CMTS Module | 64-QAM, 256-QAM       | QPSK, 8-, 16-, 32-, 64-QAM |
| Motorola TX 32 CMTS Module          | 64-QAM, 256-QAM       |                            |