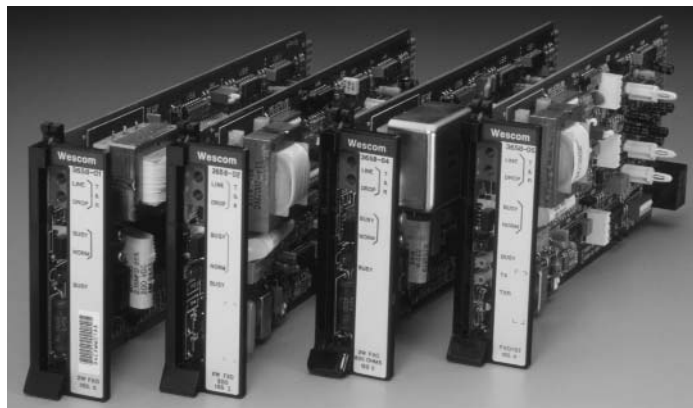


# Voice Frequency Channel Units

## For Charles' 360 and 363 series T1 Access Multiplexer Systems

Acquired by Charles Industries from Wescom® in 1991, both the 360 and 363 Series Single and Dual Digroup T1 Access Multiplexer Systems are renowned by industry professionals for their dependable performance and quality construction. Charles continues to provide a wide variety of voice frequency channel units for 360 and 363 Series systems. Both two-wire (2W) and four-wire (4W) channel units are available in all major interfaces.



## ETO Channel Units

<b>Model No.</b>	<b>Interface</b>	<b>Description</b>
<b>3650-01</b>	2W ETO 900	2W ETO, 900 ohm 2W port, accepts XMT and RCV. Input (XMT) TLP: -9.5 to +7 dB. Output (RCV) TLP: -10.5 to +6 dB.
<b>3650-03</b>	2W ETO 600	2W ETO, 600 ohm 2W port, accepts XMT and RCV. Input (XMT) TLP: -9.5 to +7 dB. Output (RCV) TLP: -10.5 to +6 dB.
<b>3653-04</b>	4W ETO	4W ETO, 150, 600 or 1200 ohm ports. Can accept XMT and RCV 3691-XX plug-on equalizer sub assemblies. Input (XMT) TLP: -16 to +8.5 dB. Output (RCV) TLP: -17.5 to +7 dB.
<b>3653-05</b>	4W ETO	4W ETO, 150, 600 or 1200 ohm ports. Can accept XMT (only) 3691-XX plug-on equalizer sub assemblies. Input (XMT) TLP: -16 to +8.5 dB. Output (RCV) TLP: -17.5 to +7 dB.

## TO Channel Units

<b>Model No.</b>	<b>Interface</b>	<b>Description</b>
<b>3653-35</b>	4W TO	4W TO, 600 ohm 4W ports. Input (XMT) TLP: -19.5 to +13 dB. Output (RCV) TLP: -19.5 to +13 dB.
<b>3653-37</b>	2W/4W TO w/Loopback	Switch-selectable 2W or 4W TO, 600 ohm ports, includes integral 2713 Hz loopback with adjustable level control. Input (XMT) and Output (RCV) TLP: -19.5 to +13 dB.

## ***E&M Channel Units***

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<b><i>Model No.</i></b>	<b><i>Interface</i></b>	<b><i>Description</i></b>
<b>3651-63</b>	2W E&M 600	2W E&M, 600 ohm, Type I, II & III E&M. Input (XMT) TLP: -4.5 to 0 dB. Output (RCV) TLP: -7 to +1.5 dB.
<b>3652-35</b>	4W E&M	4W E&M, 600 ohm, Type I, II & III E&M. Input (XMT) and Output (RCV) TLP: -19.5 to +13.5 dB.
<b>3652-66</b>	4W E&M	4W E&M, 600 ohm, Type I, II & III E&M. Input (XMT) and Output (RCV) TLP: -22.5 to +10 dB.
<b>3652-68</b>	4W E&M/PLR	4W E&M, 600 ohm, Type I, II & III E&M, includes PLR option to reverse E&M signaling directions. Input (XMT) and Output (RCV) TLP: -22.5 to +10 dB.
<b>3652-62</b>	4W E2M2/PLR	4W E&M, 600 ohm, Type I, II & III E&M, includes two sets of E&M leads and PLR option to reverse E&M signaling directions. Input (XMT) and Output (RCV) TLP: -22.5 to +10 dB.
<b>3659-00</b>	2W DX 900	2W DX, 900 ohm 2W port, accepts plug-on XMT and RCV 3691-xx PBN/BOC assemblies. Input (XMT) TLP: -9.5 to +7 dB. Output (RCV) TLP: -10.5 to +6 dB.
<b>3655-01</b>	2W DPO 900	2W DPO, 900 ohm 2W port Input (XMT) TLP: -4.5 to 0 dB. Output (RCV) TLP: -7 to +1.5 dB.
<b>3656-01</b>	2W DPT 900 w/Wink	2W DPT, 900 ohm 2W port, with optional Wink start Input (XMT) TLP: -7 to +1 dB. Output (RCV) TLP: -8 to 0 dB.
<b>3660-02</b>	2W Ringdown 900	2W Ringdown, 900 ohm 2W port, Manual or Automatic modes. Input (XMT) TLP: -16 to +0.5 dB. Output (RCV) TLP: -16.5 to 0 dB.
<b>3660-03</b>	2W Ringdown 600	2W Ringdown, 600 ohm 2W port, Manual or Automatic modes. Includes special mode that provides PLARD to far end FXS. Input (XMT) TLP: -16 to +0.5 dB. Output (RCV) TLP: -16.5 to 0 dB.

## ***FXS Channel Units***

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<b><i>Model No.</i></b>	<b><i>Interface</i></b>	<b><i>Description</i></b>
<b>3657-00</b>	2W FXS 900	2W FXS, 900 ohm 2W port, LS or GS signaling. Input (XMT) TLP: -7 to +1.5 dB. Output (RCV) TLP: -19.5 to +13 dB.
<b>3657-02</b>	2W FXS/GT 900	2W FXS/GT, 900 ohm 2W port, LS or GS signaling, accepts plug-on XMT and RCV 3691-XX cable equalizers and 3690-XX PBN/BOC assemblies. Input (XMT) TLP: -10.5 to +6 dB. Output (RCV) TLP: -10.5 to +6.5 dB.
<b>3657-03</b>	2W FXS 600	2W FXS, 600 ohm 2W port, LS or GS signaling. Input (XMT) TLP: -16 to +0.5 dB. Output (RCV) TLP: -16 to 0 dB.
<b>3657-04</b>	2W FXS 600	2W FXS, 600 ohm 2W port, LS or GS signaling. Input (XMT) TLP: -4.5 to 0 dB. Output (RCV) TLP: -7 to +1.5 dB.
<b>3657-05</b>	2W FXS/GT 600/900	2W FXS/GT, 600 or 900 ohm 2W port, three loop signaling options include FXS (LS or GS), PLARD and Special Access, accepts 3690-XX plug-on PBN assembly. Input (XMT) TLP: -10.5 to +6 dB. Output (RCV) TLP: -10 to +6.5
<b>3657-01</b>	4W FXS	4W FXS, 150, 600 or 1200 ohm 4W ports, LS or GS signaling, accepts XMT and RCV 3691-XX plug-on equalizer assemblies. Input (XMT) TLP: -7 to +1.5 dB. Output (RCV) TLP: -19.5 to +13 dB.

## ***FXO Channel Units***

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<b><i>Model No.</i></b>	<b><i>Interface</i></b>	<b><i>Description</i></b>
<b>3658-01</b>	2W FXO 900	2W FXO, 900 ohm 2W port, LS or GS signaling. Input (XMT) TLP: -4.5 to +1.8 dB. Output (RCV) TLP: -6.3 to 0 dB.
<b>3658-04</b>	2W FXO 600	2W FXO, 600 ohm 2W port, LS or GS signaling. Input (XMT) TLP: -4.5 to +1.8 dB. Output (RCV) TLP: -6.3 to 0 dB.
<b>3658-05</b>	2W FXO/GT 900	2W FXO, 900 ohm 2W port, LS or GS signaling, accepts plug-on XMT and RCV 3691-XX cable equalizers and 3690-XX PBN/BOC assemblies. Input (XMT) TLP: -10.5 to +6 dB. Output (RCV) TLP: -10 to +6.5 dB.

## ***Special Signaling Application Channel Unit***

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<b><i>Model No.</i></b>	<b><i>Interface</i></b>	<b><i>Description</i></b>
<b>3652-69</b>	4W TDM (Tandem)	4W ETO, 900 ohm 2W port, accepts XMT and RCV. Input (XMT) TLP: -9.5 to +7 dB. Output (RCV) TLP: -10.5 to +6 dB.

***Contact your Charles sales representative for specific product information.***

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