

## POLOS Y CEROS DE STS-2 N/S 49523

PoleZero.mcd, 23.12.2008 12:02

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### 2nd generation STS-2



**Zeroes:**

$Z_0 := \text{Zre}_0 + i \cdot \text{Zim}_0$	$Z_0 = -5.907 \times 10^3 + 3.411i \times 10^3$
$Z_1 := \text{Zre}_0 - i \cdot \text{Zim}_0$	$Z_1 = -5.907 \times 10^3 - 3.411i \times 10^3$
$Z_2 := \text{Zre}_1 + i \cdot \text{Zim}_1$	$Z_2 = -683.9 + 175.5i$
$Z_3 := \text{Zre}_1 - i \cdot \text{Zim}_1$	$Z_3 = -683.9 - 175.5i$
$Z_4 := \text{Zre}_2$	$Z_4 = -555.1$
$Z_5 := \text{Zre}_3$	$Z_5 = -294.6$
$Z_6 := \text{Zre}_4$	$Z_6 = -10.75$

**'Mixer pole':**

$$\omega_{\text{mix}} := -2 \cdot \pi \cdot 40.6$$

**Poles:**

$P_0 := \text{Pre}_0 + i \cdot \text{Pim}_0$	$P_0 = -6.909 \times 10^3 - 9.208i \times 10^3$	$P_8 := \text{Pre}_5 + i \cdot \text{Pim}_5$	$P_8 = -98.44 - 442.8i$
$P_1 := \text{Pre}_0 - i \cdot \text{Pim}_0$	$P_1 = -6.909 \times 10^3 + 9.208i \times 10^3$	$P_9 := \text{Pre}_5 - i \cdot \text{Pim}_5$	$P_9 = -98.44 + 442.8i$
$P_2 := \text{Pre}_1$	$P_2 = -6.227 \times 10^3$	$P_{10} := \text{Pre}_6$	$P_{10} = -10.95$
$P_3 := \text{Pre}_2 + i \cdot \text{Pim}_2$	$P_3 = -4.936 \times 10^3 - 4.713i \times 10^3$	$P_{11} := \text{Pre}_7 + i \cdot \text{Pim}_7$	$P_{11} = -0.037 + 0.037i$
$P_4 := \text{Pre}_2 - i \cdot \text{Pim}_2$	$P_4 = -4.936 \times 10^3 + 4.713i \times 10^3$	$P_{12} := \text{Pre}_7 - i \cdot \text{Pim}_7$	$P_{12} = -0.037 - 0.037i$
$P_5 := \text{Pre}_3$	$P_5 = -1.391 \times 10^3$		
$P_6 := \text{Pre}_4 + i \cdot \text{Pim}_4$	$P_6 = -556.8 - 60.05i$		
$P_7 := \text{Pre}_4 - i \cdot \text{Pim}_4$	$P_7 = -556.8 + 60.05i$		

$$G_{2_n} := (i \cdot \omega_n)^2 \cdot \frac{3.5356 \cdot 10^{20} \cdot \left[ \prod_{k=0}^6 (i \cdot \omega_n - Z_k) \right]}{\prod_{l=0}^{12} (i \cdot \omega_n - P_l) \cdot (i \cdot \omega_n - \omega_{\text{mix}})}$$

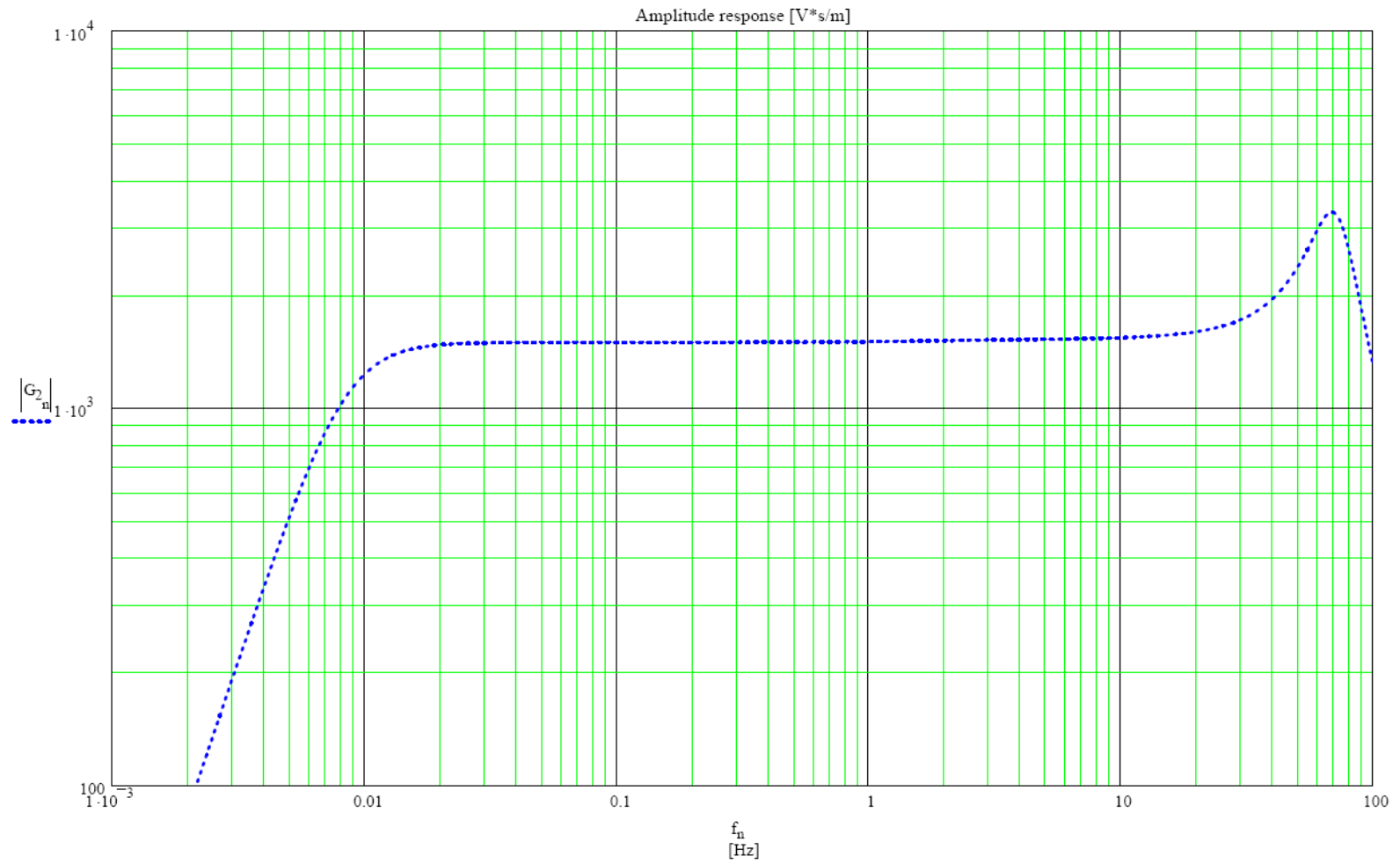
$$\Phi_{2_n} := \frac{180}{\pi} \cdot \arg(G_{2_n})$$

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## 2nd generation STS-2: Amplitude



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## 2nd generation STS-2: Phase

