0	Assignment Week14
0	121107/4 谢嘉樹
	± 10
0	1a) $7c = \frac{1}{4}c = \frac{1}{8000} = 1.25 \times 15^{4} c$, the total num within a sample period is $24+1=25$
	To and the state of the state o
	The spacing between successive paies at = 25 = 17
	= Z ps - 1 ps
0	(b) by campling thereon under Misuist rate campling for the hours To= I
0	(b) by sampling theorem, under Nyquirt rate sampling, $f_s = 2f_m = 6.8 \text{KHz}$, then $7s = \frac{1}{7}s$ than the spacing between successive pulses at = $\frac{7s}{2s} - 1 \mu s = 5.882 \mu s - 1 \mu s = 4.882 \mu s = 1.470 \text{m}$
0	5.48 me need to ensure CilCi (Ci= as(Wat+di)+as(wbt+fi) = di=fi=0)
0	CiCj = [coshat+di)+cos(wbt+fi)][cos(wat+dj)+cos(wbt+fi)]
0	= cos(net+di) cos(net+dj) + cos (net+di) cos(nbt+fj) / tos(nbt+fi) cos(net+di)
0	+ (ashbt-fi) 1000 net-fi) = = = = = = = = = = = = = = = = = = =
0	+ 2 cos (wb-most + fi-dj) + 2 cos (unbrowst + fit dj) + 2 cos (2 wbt + fit fj)
0	to ensure citi, the DC domponent of cici shall be zero
	=> = (0) (di-dj)+= (0) (fi-fj)=0
	$59 10 60 \pm 61 = 0$ $60501 + 605 = 0$
	2° Col(2, Cil(2) \Rightarrow $\begin{cases} \cos(\alpha_{2} - \alpha_{1}) + (\alpha_{3}(\beta_{2} - \beta_{1}) = 0 \\ \cos(\alpha_{2} - \alpha_{1}) + (\alpha_{3}(\beta_{2} - \beta_{1}) = 0 \end{cases}$
	3° Co \pm Cz, C ₁ \pm C3, Co \pm Cz =>) $60363 + 60363 = 0$ 603(03-01) + 603(13-10) = 0 603(03-01) + 603(13-10) = 0
	605(x3-02) +605(\$3-\$2)=0
0	More explicitly, if we take $x_1 = \beta_1 = \frac{1}{2}$. Hen $\begin{cases} \cos \alpha_2 + \cos \beta_1 = 0 \\ \sin \alpha_2 + \sin \beta_1 = 0 \end{cases}$ \Rightarrow take $\alpha_2 = \frac{1}{4}$, $\beta_2 = \frac{1}{4}$
0	1.) Cosd3+6083=0
0	then $\begin{cases} \cos d3 + \cos \beta 3 = 0 \end{cases}$ toke $\cos 2 = \frac{3}{4}$, $\sin 2 = \frac{3}{4}$, $\sin 2 = \frac{3}{4}$, $\sin 2 = \frac{3}{4}$
0	
0	
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