

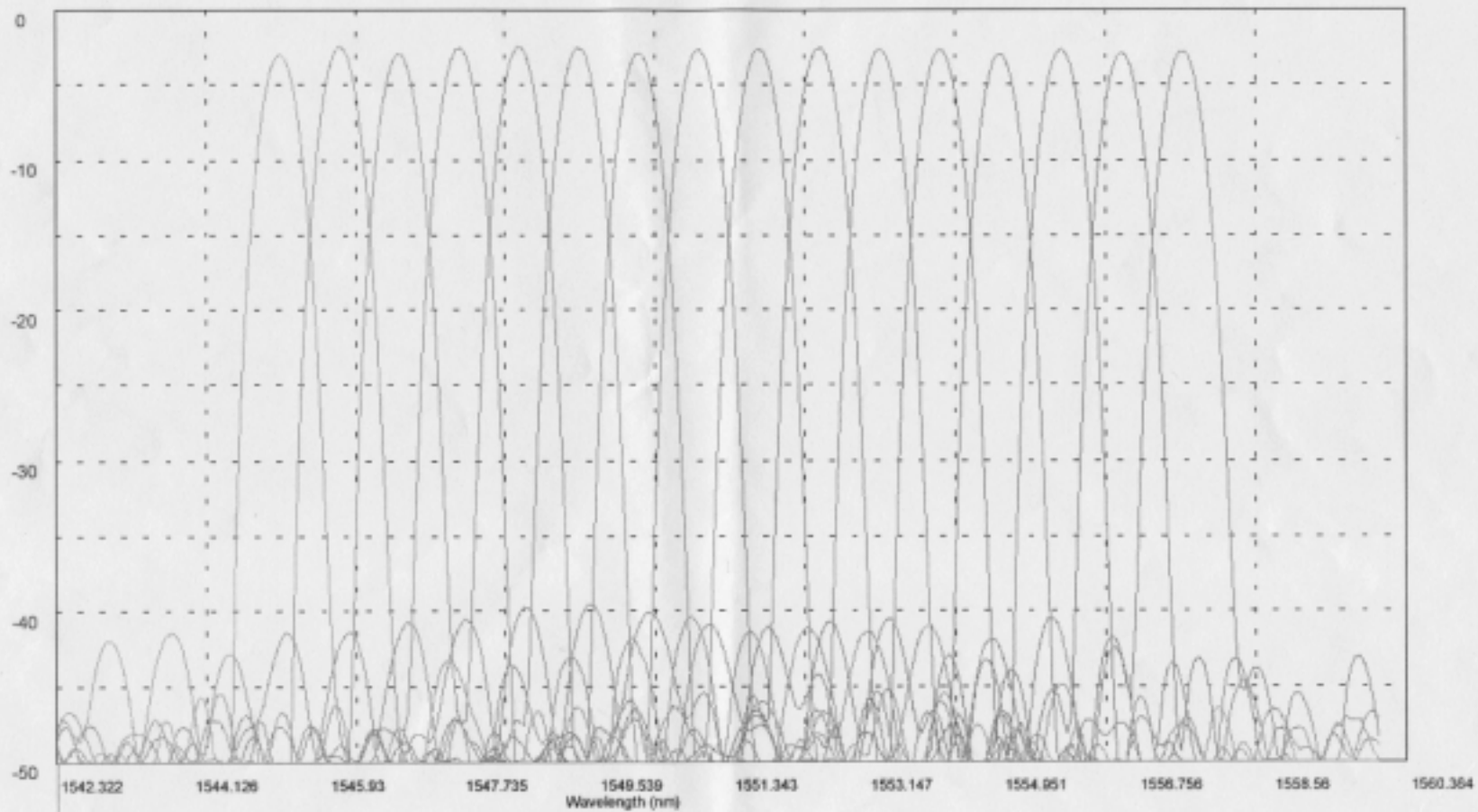
**Inspection Certification and
Test Report for AWG**
(연세 대학교)

Date : August 22, 2002

Type	Schematic	Channel	Quantity	Remark
AWG	100GHz channel spacing Conventional Rack type FC/APC type	16	1 ea	16C208004

이승완

Signed by SeungWan Lee
R&D Manager

4. Spectrum of AWG

SAMSUNG ELECTRONICS co., Ltd.

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☎TEL : 82-31-279-4543, FAX : 82-31-279-4555

1. Specifications

No.	Item	Symbols	Unit	specifications
1	Number of Channels	NC	Chs	16
2	Channel Spacing	Δf	GHz	100
3	Channel Wavelengths	λ	nm	1545.32 ~ 1557.36
4	Wavelength Accuracy	$\delta\lambda$	nm	$\leq \pm 0.04$
5	Insertion Loss @ ITU	L_i	dB	≤ 3
6	Loss Uniformity	LU	dB	≤ 1.0
7	1dB Bandwidth	BW_{1dB}	nm	≥ 0.2
8	3dB Bandwidth	BW_{3dB}	nm	≥ 0.4
9	Adjacent Crosstalk @ ITU	AX	dB	≥ 28
10	Non-adjacent Crosstalk @ ITU	NAX	dB	≥ 30
11	PDL @ λ_c	PDL	dB	≤ 0.3
12	Setting Temperature		℃	65 ~ 80
. Operating Temperature range : 0 ~ 65 ℃				

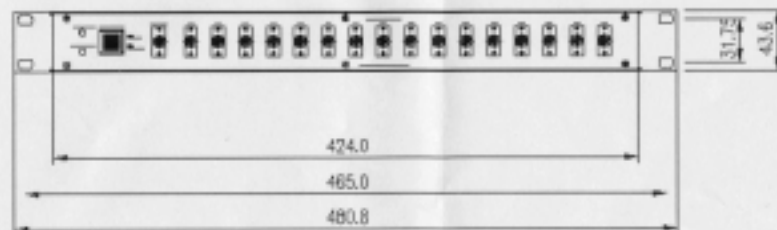
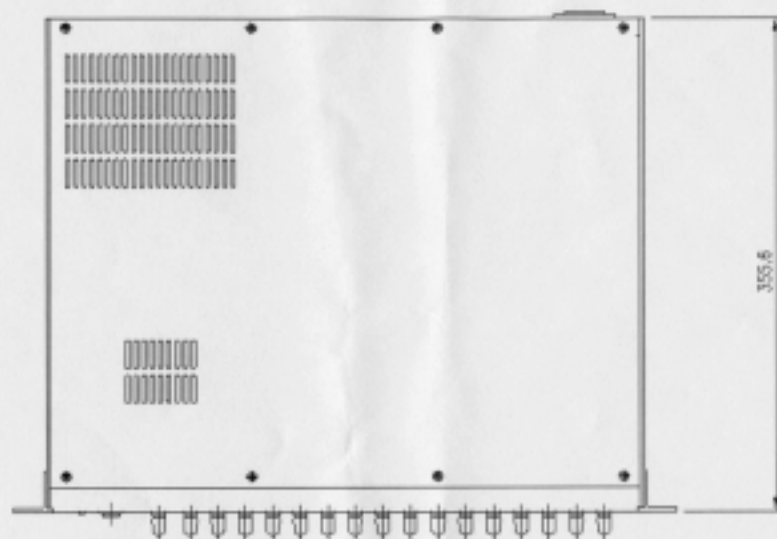
2. Test Results of Optical Performances

OUT-	ch 1	ch 2	ch 3	ch 4	ch 5	ch 6	ch 7	ch 8	ch 9	ch 10	ch 11	ch 12	ch 13	ch 14	ch 15	ch 16
λ_c	1545.315	1546.118	1546.908	1547.717	1548.522	1549.317	1550.121	1550.921	1551.73	1552.534	1553.342	1554.153	1554.952	1555.77	1556.58	1557.392
$\delta\lambda$	-0.007	-0.001	-0.011	0.001	0.007	0.002	0.005	0.003	0.009	0.009	0.013	0.019	0.012	0.023	0.025	0.028
L_c	2.97	2.43	2.93	2.50	2.44	2.48	2.85	2.60	2.57	2.50	2.60	2.65	2.93	2.67	2.94	2.75
PDL	0.06	0.05	0.10	0.04	0.04	0.05	0.05	0.04	0.02	0.02	0.06	0.05	0.02	0.08	0.08	0.08
BW_{1dB}	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
BW_{3dB}	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
AX	40.85	41.01	40.95	44.13	43.96	43.64	43.60	43.27	43.81	43.07	41.43	40.96	41.65	41.15	40.91	39.01
NAX	40.49	41.23	40.18	38.91	37.95	38.27	37.73	37.07	37.06	37.71	37.93	38.47	37.86	37.89	40.05	41.42
Tot X	34.97	34.50	32.98	33.01	33.47	32.97	32.45	32.61	32.22	32.29	32.18	32.42	32.27	33.37	33.13	34.65

OUT-	MIN	MAX	AVERAGE
λ_c			
$\delta\lambda$	-0.011	0.028	0.009
L_c	2.43	2.97	2.67
PDL	0.02	0.10	0.05
BW_{1dB}	0.24	0.24	0.24
BW_{3dB}	0.41	0.41	0.41
AX	39.01	44.13	42.09
NAX	37.06	41.42	38.76
Tot X	32.18	34.97	33.09

* Tot X : Total crosstalk

3. Package Dimensions



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