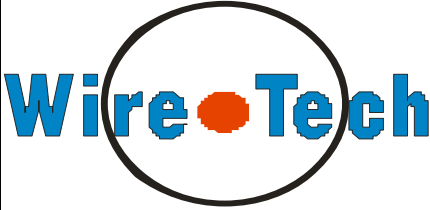


Codificación: WT8338C	ESPECIFICACIONES TECNICAS	
Fecha: 15/09/10		
Hojas 1 de 4		
Asunto	Amplificador Extensor 2 salidas / Rev.	

## WT8338C Outdoor Bi-directional AGC Trunk Amplifier dual Output

### I. Summary

WA8338C outdoor bi-directional AGC trunk amplifier is new developed and high gain amplifier. It is adapts optimization circuit design, with scientific and reasonable internal process and very good material and also built-in high performance AGC control circuit, so as to ensure the stability gain and low distortion. It is the first choice of large and medium-sized two-way CATV transmission network equipment.

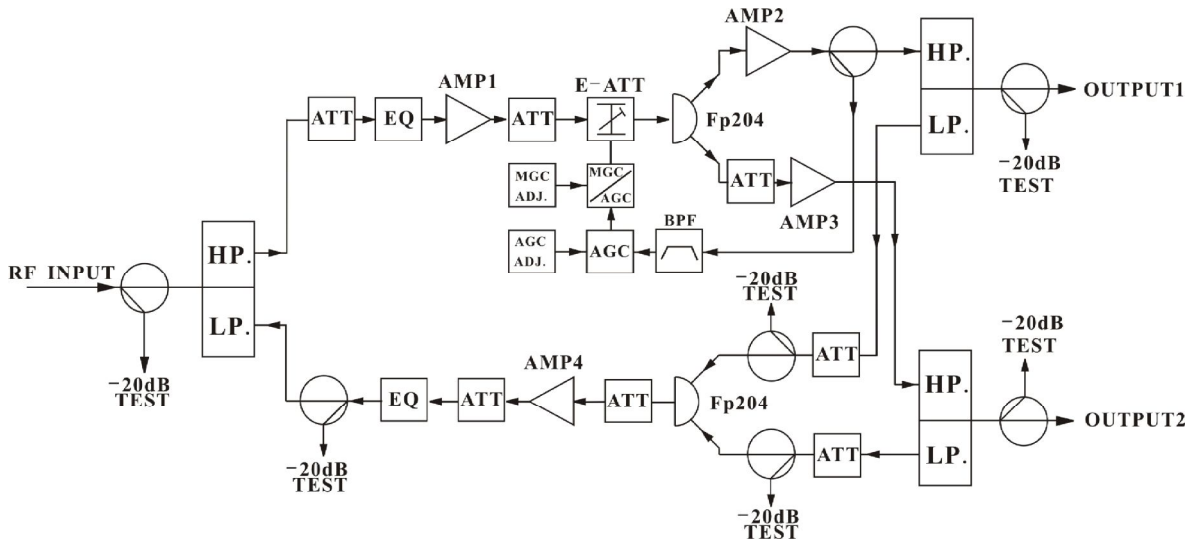
### II. Performance Characteristics

- Forward path adapts import PHILIPS or NEC low noise push-pull amplify module or GaAs push-pull module, the output adapts two independent PHILIPS or NEC double power amplify module or GaAs amplify module that made to excellent nonlinear index and stability output level; Reverse path adapts PHILIPS return amplify module, low distortion and high SNR.
- Plug-in diplexer, plug-in fixed (or adjustable) EQ, fixed (or adjustable) ATT, plug-in output tap and with online testing port that made to more convenience project adjusting.
- Built-in optimization high performance AGC control circuit to ensure the circuit signal processing stability.
- Waterproof aluminum housing, high reliability switch power, strictly anti-thunder system that make sure the equipment can long time stability working under field harsh environment.

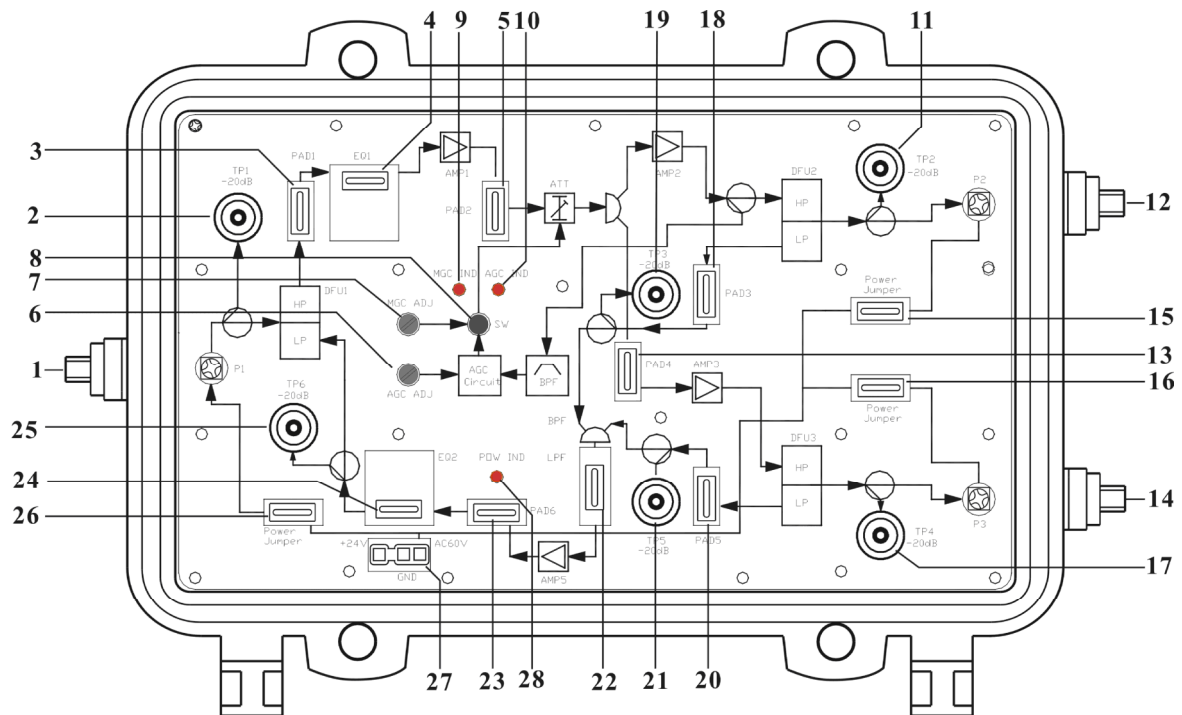
□. Technical Parameter

Item	Unit	Parameters	
<b>Downlink Transmission</b>			
Frequency Range	MHz	53/85 ~ 860	
Standard Gain	dB	OUT1/2≥38	
Min Full Gain	dB	≥38	
Standard Input Level	dBμV	72	
Standard Output Level	dBμV	108	
Flatness In Band	dB	±0.75	
Noise Figure	dB	≤ 10	
Return Loss	dB	≥ 16	
ATT	dB	1-18(Fixed plug, 1dB step)	User Selectable
EQ	dB	1-15(Fixed plug, 1dB step)	
C/CTB	dB	67	Test condition: 79 channels. Output level: 53MHz/550MHz/750MHz, 99dBuV/105dBuV/108 dBμV.
C/CSO	dB	69	
AGC Pilot Frequency	MHz	168.25 ( or named by user )	
AGC Characteristic	dB	±4 ( Input ) /±0.5 ( Output )	
Group Delay	ns	≤ 10 (112.25 MHz/116.68 MHz)	
Signal to Hum Rate	%	< 2	
Gain Stability	dB	-1.0 ~ +1.0	
<b>Uplink Transmission</b>			
Frequency Range	MHz	5 ~ 42/65	
Rated Gain	dB	≥20	
Min Full Gain	dB	≥20	
Max Output Level	dBμV	≥ 110	
Flatness In Band	dB	±0.75	
Noise Figure	dB	≤ 12	
Return Loss	dB	≥ 16	
Carrier to Second Order Intermodulation Ratio	dB	≥ 52	Test condition: output level 110dBμV, Test point: F1=10MHz,F2=60MHz, F3=F2-F1=50MHz
Group Delay	ns	≤ 20 (57MHz/59MHz)	
Signal to Hum Rate	%	< 2	
<b>General Characteristic</b>			
Characteristic Impedance	Ω	75	
Test Port	dB	-20±1	
Power Voltage	V	A : AC ( 135 ~ 250 ) V ; B : AC ( 35 ~ 90 ) V	
Impulse Withstand Voltage ( 10/700μs )	kV	> 5	
Power Consumption	W	30	
Dimension	mm	289*218*123	

#### IV. Block Diagram



#### V. Structure Scheme



- |                                  |                                 |                                      |                                    |
|----------------------------------|---------------------------------|--------------------------------------|------------------------------------|
| 1. RF Input                      | 2. Input RF Test (-20dB)        | 3. Forward Fixed ATT 1               | 4. Forward Fixed EQ                |
| 5. Forward Fixed ATT 2           | 6. AGC Control Indicator        | 7. MGC Gain Control Adjustment       | 8. MGC/AGC Switcher                |
| 9. MGC Control Indicator         | 10. AGC Gain Control Adjustment | 11. Forward Output Test 1(-20dB)     | 12. RF Output 1                    |
| 13. Forward ATT 2                | 14. RF Output 2                 | 15. Output 1 Over-current Inserter   | 16. Output 2 Over-current Inserter |
| 17. Forward Output Test 2(-20dB) | 18. Reverse Input ATT 1         | 19. Reverse Input Test 1(-20dB)      |                                    |
| 20. Reverse Input ATT 2          | 21. Reverse Input Test 2(-20dB) | 22. Reverse Low Pass Filter Inserter |                                    |
| 23. Reverse Output ATT           | 24. Reverse Output EQ           | 25. Reverse Output Test (-20dB)      |                                    |
| 26. Input Over-current Inserter  | 27. Main Board Power Input      | 28. Power Indicator                  |                                    |

## **VI. Order Guide**

Please confirm the crossover frequency of uplink and downlink of bi-directional channel and also the frequency of AGC pilot signal.

### **Special Notice:**

1. This product must be reliable grounded before use.
2. The maximum over-current capacity of this product is 10A.