

Title (en)
NETWORK ANALYSER WITH AN N-PORT NETWORK HAVING AT LEAST TWO PORTS FOR MEASURING THE WAVE PARAMETERS OF A MEASUREMENT OBJECT

Title (de)
NETZWERKANALYSATOR MIT EINEM ZUMINDEST ZWEI TORE AUFWEISENDEN MEHRTOR ZUR MESSUNG DER WELLENPARAMETER EINES MESSOBJEKTS

Title (fr)
ANALYSEUR DE RÉSEAU PRÉSENTANT UN MULTI-PORT DOTÉ D'AU MOINS DEUX PORTS POUR LA MESURE DES PARAMÈTRES ONDULATOIRES D'UN OBJET À MESURER

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Abstract (en)
[origin: WO2010112277A1] The invention relates to a network analyser with an n-port network having at least two ports (T1, T2) for measuring the wave parameters of a measurement object (M), wherein each port (T1, T2) has a feed for a radio-frequency signal from a signal source (S1, S2), and that signal component of the radio-frequency signal fed into the respective port (T1, T2) which is reflected at the measurement object (M) and that signal component of one or more radio-frequency signals fed into at least one other port (T1, T2) which is transmitted through the measurement object to the respective port (T1, T2) can be measured as wave parameters for a respective port. During operation of the network analyser, the at least two ports (T1, T2) of the n-port network are supplied with different radio-frequency signals, the frequencies (f_TX1, f_TX2) or frequency bands of which are offset with respect to one another by a frequency offset (f_diff), and the reflected and transmitted signal components of the radio-frequency signals are measured at the same time at the at least two ports (T1, T2). The network analyser according to the invention has the advantage that, in contrast to conventional network analysers, it can be used to measure the wave parameters of dynamic measurement objects which change quickly over time.

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